

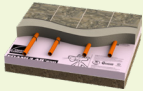




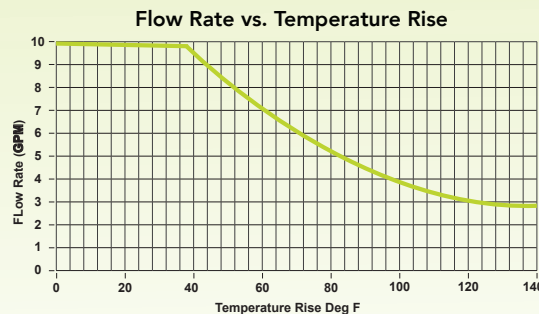


# SPACE HEATING SIZING GUIDE for Hydro Smart 199 Condensing Micro-Boiler

1. CHOOSE YOUR APPLICATION & TEMPERATURE →	 <b>50° F Operation</b> • Garage • Post Frame		 <b>70° F Operation</b> • Whole House • Post Frame • Sun Room • Basement • Garage	
	2. CHOOSE YOUR SQUARE FOOTAGE →	MODEL	SKU	MODEL
HS199-NG		665-1010	HS199-NG	665-1010
	HS199-LP	665-1011	HS199-LP	665-1011
	900-5,000 Sq. Ft.		900-5,000 Sq. Ft.	
EMITTERS TYPES	Tubing In Concrete	Staple Up	Water Fan/Coil	Baseboard
				 

## HS199CON OPTIONAL VENTING ACCESSORIES

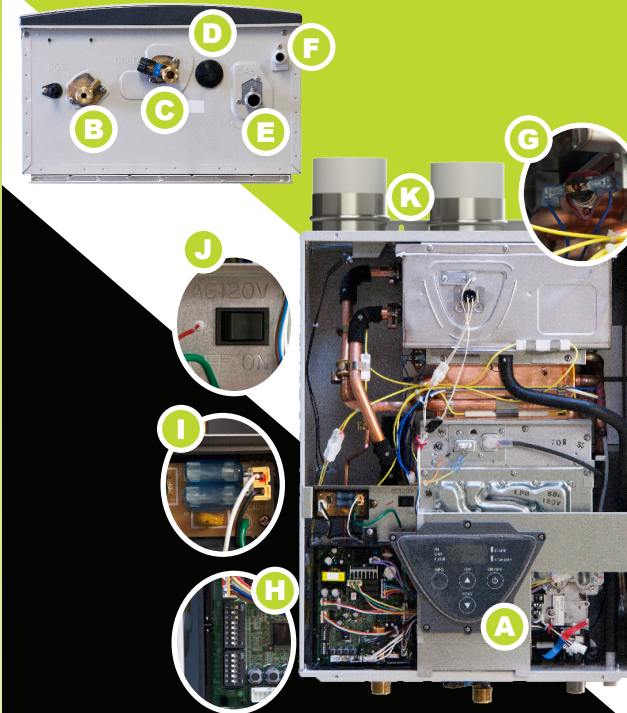
MODEL	SKU	DESCRIPTION	VENTING TYPE	ITEM
HS-2ZVB04	665-1003	Back Flow Preventer on Exhaust Vent	Category III 4" Stainless Steel	L
HS-2ZVWB04	Special Order	Vent Kit with Back Flow Preventer-Wall Thimble-Hood-90°Elbow-Pipe	Category III 4" Stainless Steel	M
HS-CVENT-3		3" PVC - Concentric Vent	3" Schedule 40 PVC	N
HS-2SVSNA04.5		Universal Adapter on Air Intake	Category III 4" Stainless Steel	O



\*For zones under 900 Sq. Ft., Use a Buff Max Tank to prevent short cycling.



\*Additional boiler control required for temperatures above 160° F. Default boiler max temp is 160° F  
 Micro-Boilers & Hydro Smart Integrator Panels sold separately. Guide is based on insulating to a R19 in walls, R38 in ceilings, maximum 12 ft. sidewalls, with 2" of extruded styrene insulation around perimeter & under slab emitter and/or 3-1/2" of fiberglass insulation for staple up emitter. For more accurate sizing, a BTU heat loss of the heated space should be considered.  
**ALWAYS CHECK WITH & FOLLOW LOCAL CODES**



- A - Boiler Control/Code Detector
- B - 3/4" Hot Fluid Supply
- C - 3/4" Cold Fluid Return
- D - 120 Volt Power Supply
- E - 3/4" Gas Supply
- F - Condensate Drain
- G - Fluid Over Heating Protection
- H - High Altitude Heating Adjustment
- I - Fuse Protection
- J - Power Switch
- K - Intake/Exhaust

**THIS IS A CONDENSING BOILER AND REQUIRES A FLOOR DRAIN.**

## HYDRO SMART 199 CONDENSING BOILER

Natural Gas Model: **HS199ConNG** SKU: 665-1010  
 Liquid Propane Model: **HS199ConLP** SKU: 665-1011

### SPECS

- VOLTS 120
- AMPS 1
- BTU OUTPUT 12,350 - 189,050
- WATER TEMP RANGE \*80° - 185° F
- GAS LINE MIN. SIZE 3/4" MPT
- VENTING 2" - 4" CAT III SS/PVC Schedule 40 (Solid Core)
- ENERGY FACTOR 95%
- IGNITION TYPE Electronic Spark
- INLET GAS PRESSURE NG: Min 5.0" WC Max 10.5 " WC  
LP: Min 8.0" WC Max 14.0 " WC

MICRO-BOILER SIZE  
 22.5" H x 17.75" W x 10.75" D - 59lbs

# HYDRO SMART 199 HYDRONIC SYSTEMS

With Condensing Technology



The HS199 Condensing Gas Micro-Boiler is a compact and powerful residential unit with a versatile BTU modulating range.

Install your system easily with our Hydro-Smart panels that are pre-wired, pre-plumbed and pressure tested.

### EMITTER TYPES

- Tubing In Concrete
- Staple Up
- Water/Fan Coil
- Baseboard
- Radiator

### FEATURES

- Copper Heat Exchanger
- Flow Activated -.75 GPM
- 3" Schedule 40 PVC (Solid Core)
- Temperature Range - 80° - 160°F -80-185°F with SKU: 665-1400
- BTU Modulation Output 12,350-189,050
- Power Vent
- Wall Hung
- Freeze Protection
- No Pilot Light
- Energy Factor: 95%

(Combi Panel option for potable water and space heating)

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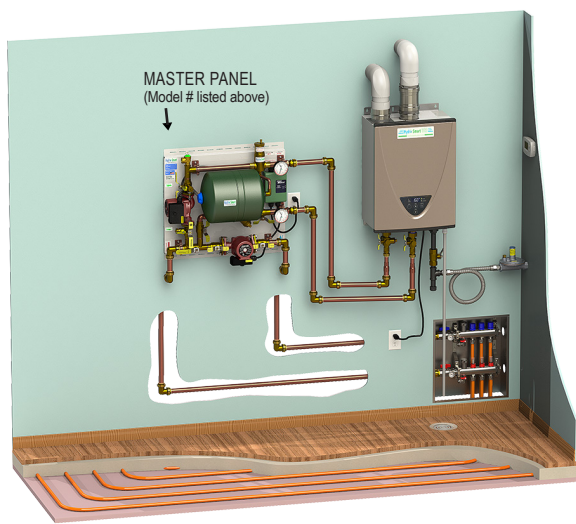


# SPACE HEATING PANEL SYSTEMS

## ONE ZONE INTEGRATOR PANEL

Primary Secondary Panel - (One Zone)  
 Model # HSPS120HT - SKU: 665-0901  
 Model # HSPS190HT - SKU: 665-1122 (shown)

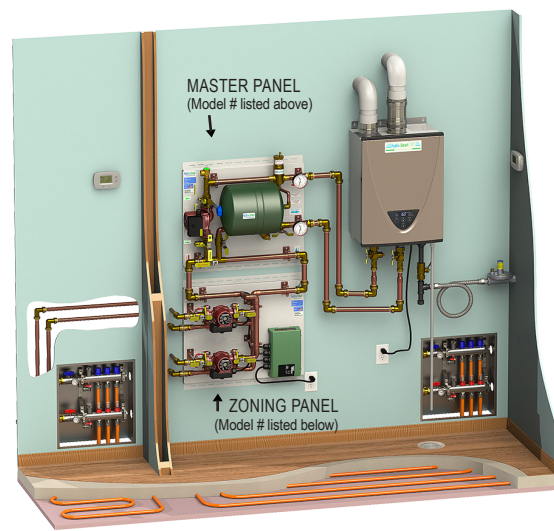
Shown: HS199 Gas Micro Boiler with Master 1 Zone Panel (HSPS190HT) and a Thermostat (TH135) heating tubing in-floor emitter.



## ZONING BY PUMP

Zone by Master Pump Panel - 1- 4 Zones  
 Model # HSPS120MPH - SKU: 665-1151  
 Model # HSPS190MPH - SKU: 665-1120 (shown)

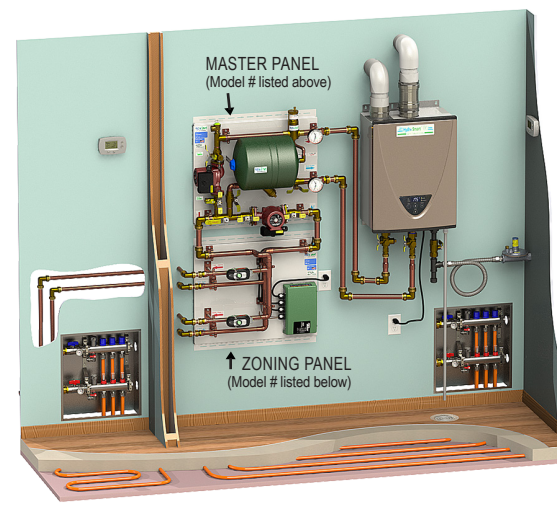
Shown: HS199 Gas Micro-Boiler with Master Pump Panel (HSPS190MPH) and a Zoning by Pump Panel (HS1T2ZPMP) with 2 Thermostats (TH135) heating tubing in-floor emitters.



## ZONING BY ZONE VALVE

Zone by Master Zone Valve Panel 1- 4 Zones  
 Model # HSPS120MZH - SKU: 665-1161  
 Model # HSPS190MZH - SKU: 665-1123 (shown)

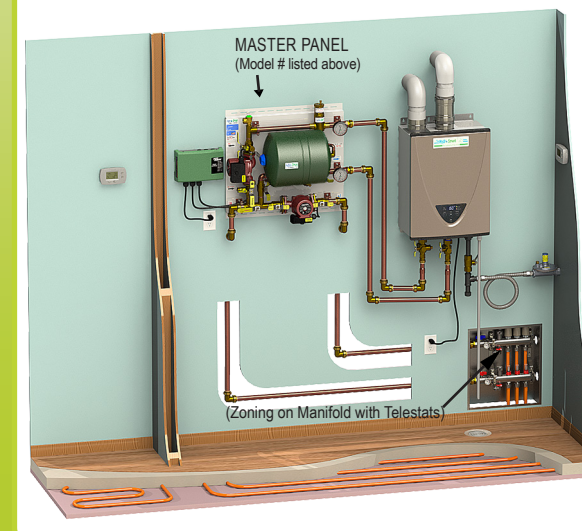
Shown: HS199 Gas Micro-Boiler with Master Zone Valve Panel (HSPS190MZH) and a Zoning by Zone Valve Panel (HS1T2ZZV) with 2 Thermostats (TH135) heating tubing in-floor emitters.



## ZONING BY TELESTAT

Zone by Master Telestat Panel - 1- 4 Zones  
 Model # HSPS120MTH - SKU: 665-1171  
 Model # HSPS190MTH - SKU: 665-1121 (shown)

Shown: HS199 Gas Micro-Boiler with Master Telestat Panel (HSPS190MTH) with 1 - 4 Thermostats (TH135) heating tubing in-floor emitters.



## HYDRO-SMART PANELS HELP MAKE RADIANT HEAT easy & reliable

- Constructed with top quality materials, including heavy duty type L copper pipe and a powder coated panel.
- Engineered and proven panel design uses professional hydronic practices.
- By working smarter not harder, a pre-assembled panel saves job site labor expense and time.
- With nothing extra and nothing spared on each panel, every component is there to help ensure your system provides years of trouble free operation.

### 1 TEMPERATURE ZONE BY PUMP PANEL

(1 Temperature panels are for systems with one emitter type)

- 2 Zone Model # HS1T2ZPMP - SKU: 665-1240
- 3 Zone Model # HS1T3ZPMP - SKU: 665-1241
- 4 Zone Model # HS1T4ZPMP - SKU: 665-1242

### 2 TEMPERATURE ZONE BY PUMP PANEL

(2 Temperature panels have a mixing valve for systems with different emitter types)

- 2 Zone Model # HS2T2ZPMP - SKU: 665-1200
- 3 Zone Model # HS2T3ZPMP - SKU: 665-1201
- 4 Zone Model # HS2T4ZPMP - SKU: 665-1203

### 1 TEMPERATURE ZONE BY VALVE PANEL

- 2 Zone Model # HS1T2ZZV - SKU: 665-1260
- 3 Zone Model # HS1T3ZZV - SKU: 665-1261
- 4 Zone Model # HS1T4ZZV - SKU: 665-1262

### 2 TEMPERATURE ZONE BY VALVE PANEL

- 2 Zone Model # HS2T2ZZV - SKU: 665-1220
- 3 Zone Model # HS2T3ZZV - SKU: 665-1221
- 4 Zone Model # HS2T4ZZV - SKU: 665-1222

### THERMOSTAT

Model # TH135 - SKU: 665-5650



SPECIAL ORDER

Other boilers, water heaters and accessories available on Menards.com



**Hydro Smart 199 Condensing Micro-Boilers** are compact, efficient, and a great value.

Condensing Gas Micro-Boilers don't require large electrical needs yet they produce a tremendous amount of BTUs. When venting and piping of a gas supply is an option, gas may be a great choice.

Each Hydro Smart 199 unit when installed and operated per the installation instructions has a 2-year warranty covering all parts and the heat exchanger. See manufacturer warranty for full details. Each Hydro Smart Integrator Panel, when installed and operated per the installation instructions, has a 1 year warranty covering all parts. No labor allowances. See manufacturer warranty for full details.

Note: Micro-Boilers, Integrator Panels, Thermostats, Manifolds, Pipe and accessories are all sold separately. Hydro Smart™ reserves the right to alter product offerings and specifications at any time without notice.