



**Burnham**<sup>®</sup>

**Alpine**<sup>™</sup>



## Gas Fired, Stainless Steel, Condensing Water Boiler

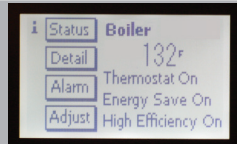
**Fully Updated for D.O.E. 2012 Compliance!**



- Equipped with Sage2.1<sup>™</sup> Control System, includes built-in sequencer for internal staging of up to eight Alpine boilers
- 80 – 500 MBH (7 sizes)
- Stainless steel heat exchanger
- For use with natural or LP gas
- Modern, appliance-like design with gas, water, & electric connections on left side
- Unique, patented polypropylene condensate trap with internal cutoff switch prevents damage to heat exchanger from condensate backup
- Wall hung (80-210 sizes) or floor mounted
- FREE 5-year parts & labor warranty included\*

\*For residential boilers under 300 MBH, registration required

**Sage2.1**<sup>™</sup>  
boiler control system



- Backlit LCD touchscreen display provides diagnostic and troubleshooting information via intuitive text and menus, without cryptic codes or scrolling
- Energy saving “thermal purge”, which works by circulating residual warm water (140° or above) in the heating system before firing the boiler
- Full modulation with 5-to-1 turndown and adaptable firing rate output
- Outdoor reset included, plus warm weather shutdown, and off season pump exercising
- DHW priority, control data logging, multiple & adjustable pump outputs
- 4-20mA and modbus inputs



**Burnham**<sup>®</sup>  
by  
**U.S. Boiler Company**



# Alpine: Technical Information

## Standard Equipment

- Direct vent appliance
- Slide-out control panel
- Slide-out line voltage terminal strip
- Sage2.1 Control System
  - LCD touch screen display
  - Self-guided control menus
  - 100+ help screens
  - Built-in self diagnostics
  - (3) separate circulator outputs
  - Built-in sequencer, stages up to (8) boilers
  - 4-20 MV inputs for external control
  - Outdoor reset including outside sensor
  - DHW priority
  - Warm weather shutdown
- Variable speed combustion blower
- Negative pressure gas valve
- Stainless steel heat exchanger
- Max operating setpoint 195°F, max pressure 80 PSI
- Polypropylene condensate trap w/overflow protection
- Supply, return, and auto reset high limit water sensors
- Flue gas temperature sensor and differential pressure switch
- All connections on left side of boiler
- CPVC to PVC vent kit
  - Includes 30" CPVC, 90° elbow, 2-vent terminals, screens, and combination cement & primer
- Five year parts & labor warranty (sizes up to 285 MBH, residential only, **product registration required**)

## Alpine Ratings & Specifications

Model	AFUE%	Input (MBH) min-max	DOE Heating Capacity (MBH)	Net AHRI (MBH)	Vent Size (Inches)	Approx. Shipping Weight. (lbs.)
80-210 MODELS ARE AVAILABLE FOR WALL OR FLOOR MOUNTING						
ALP080		16-80			3	137
ALP105		21-105			3	155
ALP150		30-150			3	182
ALP210		42-210			3	206
FLOOR MOUNTED MODELS						
ALP285		57-285			4	256
ALP399	94.5 <sup>1</sup>	80-399	377 <sup>2</sup>	328 <sup>3</sup>	4	304

<sup>1</sup>Thermal efficiency      <sup>2</sup>Gross output      <sup>3</sup>Net rating

### NOTES:

DOE Heating Capacity (ALP080 through ALP285); Gross Output (ALP399)  
 Maximum Working Pressure - Water: ALP080-285=30PSI;  
 ALP399=50PSI; 80PSI optional on all models  
 ASME certified 160 psi at 210°F. Max temperature setting 195°F  
 Maximum operating setpoint 195°F (up to 210°F with low return temps—see manual for details)  
 Boilers shipped set for natural gas; field adjustment for LP (see instruction manual)  
 For elevations above 2000 feet, reduce ratings four percent (2.5%) per 1000 feet above sea level

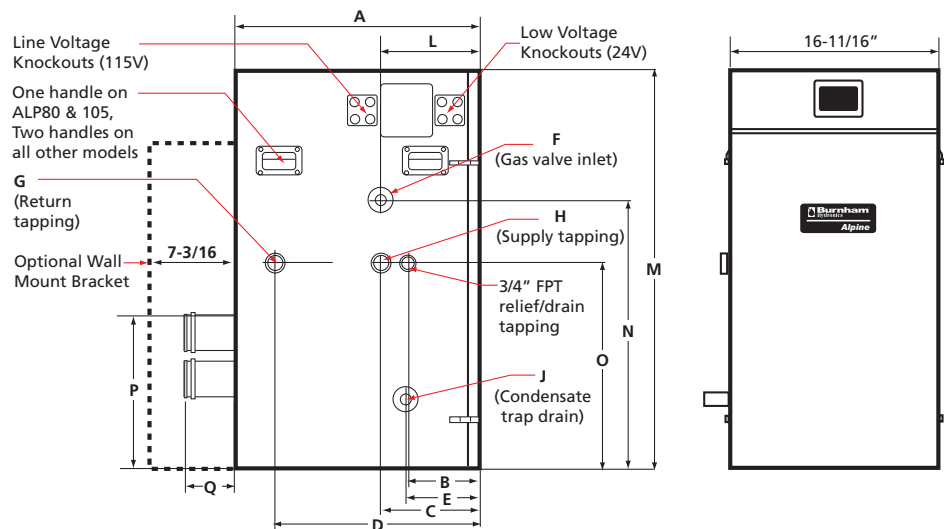


## Alpine Dimensions (Inches)

Model	A	B	C	D	E	F	G	H	J	L	M	N	O	P	Q
ALP080	12-9/16	5-5/8	7-5/16	9-5/16	5-15/16	1/2	1	1	*	8	32-3/16	21-3/4	16-11/16	12-1/2	4-3/4
ALP105	14	5-13/16	7-5/16	10-3/4	5-15/16	1/2	1	1	*	8	32-3/16	21-3/4	16-11/16	12-1/2	4-3/4
ALP150	19-11/16	5-13/16	7-5/16	16-7/16	5-15/16	1/2	1	1	*	8	32-3/16	21-3/4	16-11/16	12-1/2	4-3/4
ALP210	23-15/16	5-13/16	7-5/16	17-1/8	5-15/16	1/2	1	1	*	8	32-3/16	21-3/4	16-11/16	12-1/2	4-3/4
ALP285	21-13/16	7-5/16	14-1/8	18	12-1/4	3/4	1-1/4	1-1/4	*	8-5/16	43-7/16	32-7/16	17-5/16	12-3/16	4-3/4
ALP399	28-7/8	6-3/16	13-1/16	23-3/4	15-13/16	1	1-1/2	1-1/2	*	8-5/16	43-7/16	32-7/16	17-5/16	12-3/16	4-3/4

\*Factory provided socket end compression pipe joining clamp for 3/4" schedule 40 PVC pipe

Alpine CPVC to PVC Vent & Intake Sizes			
Model	Intake Size	Vent Size	Max Length Intake/Vent
ALP080	3"	3"	100'/100'
ALP105	3"	3"	100'/100'
ALP150	4"	3"	100'/100'
ALP210	4"	3"	100'/100'
ALP285	4"	4"	60'/60'
ALP399	4"	4"	60'/60'



NOTE: Snorkels are approved for use with PVC venting. Intake & vent lengths combined. 90° = 5 equivalent feet. Terminals do not count towards vent feet length

**FIELD ADAPTABLE KIT AVAILABLE FOR WALL HUNG CONFIGURATION:**  
 (for ALP080 through ALP210 only)  
 Part # 102991-01