SUBMITTAL DATA SHEET

JOB NAME: _____ DATE: _____

LOCATION: _____

ENGINEER: _____

WHOLESALER: _____

CONTRACTOR: _____

SUBMITTED TO: _____

MODEL DESIGNATION: _____ FUEL: _____

CHECK ONE:

_____ REFERENCE (NOT FOR PRODUCTION)

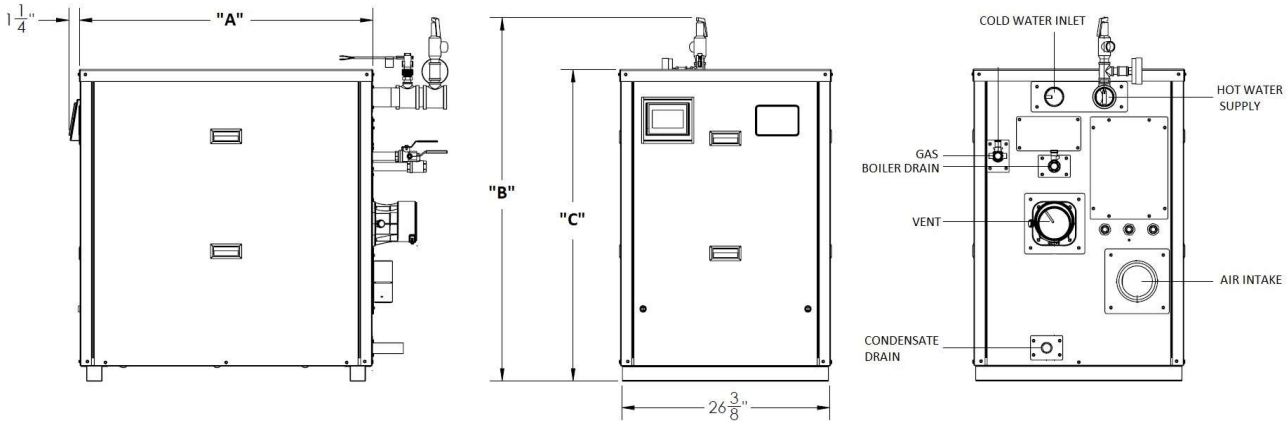
_____ APPROVED (IMMEDIATE PRODUCTION)

_____ APPROVED WITH CHANGES NOTED (IMMEDIATE PRODUCTION)

RATINGS AND TECHNICAL DATA

AMP-L MODELS	INPUT		GROSS	THERMAL	HEATING	WATER	*FUEL		SHIPPING
	MIN	MAX	OUPUT	EFFICIENCY	SURFACE	CONTENT	NAT. GAS	PROPANE	WEIGHT
	(MBH)	(MBH)	(MBH)	(%)	(SQ/FT)	(GAL.)	MIN / MAX	MIN / MAX	(LBS)
AMP-400	40	399	387	97.0%	35	3.8	4"/14"wc	8"/14"wc	460
AMP-500	50	500	485	97.0%	39	4.3	4"/14"wc	8"/14"wc	470
AMP-650	65	650	631	97.0%	52	5.6	4"/14"wc	8"/14"wc	530
AMP-800	80	800	776	97.0%	61	6.6	4"/14"wc	8"/14"wc	560
AMP-1000L	100	999	969	97.0%	75	8.1	4"/14"wc	8"/14"wc	600

DIMENSIONS



SIDE FRONT REAR

	"A"	WIDTH	"B"	"C"	VENT / AIR INTAKE			SUPPLY	RETURN
	LENGTH		O/A HGT.	HEIGHT	SIZE	EQUIV.	GAS	OUTLET	INLET
AMP-L MODELS	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	LENGTH (Ft.)	(Inches)	NPT Female	NPT Male
AMP-400	37 3/4	26 3/8	46 7/8	38 1/2	4	Up to 200	3/4 NPT	2	2
AMP-500	37 3/4	26 3/8	46 7/8	38 1/2	4	Up to 200	3/4 NPT	2	2
AMP-650	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2
AMP-800	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2
AMP-1000L	53 7/8	26 3/8	66 3/8	38 1/2	6	Up to 200	1 NPT	2	2

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STANDARD EQUIPMENT

PRESSURE VESSEL DESIGN

Stainless Steel Heat Exchanger
ASME Section IV Certified, "H" Stamp
MAWP 160 PSIG & Max Temp 210°F
Setpoint range is 60-185°F
Adjustable, manual reset high limit setting of ≤ 200°F.
ASME H stamp MAWT is 210°F for the vessel.
(For max setpoint, see Setpoint range.)
Ten Year Limited Pressure Vessel Warranty

COMBUSTION DESIGN

Stainless Steel Pre-Mix Burner
Low NOx Emissions (< 10 ppm)
Full Modulation, 10:1 Turndown
Natural Gas or Propane
4" wc (8" wc Propane) to 14" wc inlet gas pressure
Direct Spark Ignition System
High/Low gas pressure switches, manual reset
Variable Speed Combustion Blower
Blocked Vent Switch

VENTING

Category II or IV Venting
Indivdual or Common (Engineered) Vent System
Vertical or Horizontal
3-in-1 Vent Connector
Acceptable venting materials: CPVC, PP or SS Venting
Built-in vent gas sensor test port
Combustion Air Intake - Sealed or Room

BOILER EQUIPMENT

Concert ™ Control (24 Vac)
High Limit Temp Control, Manual Reset
Low water cutoff, manual reset
Water Flow Switch
Supply & Return Water Temperature Sensors
Flue Gas Temperature Sensor
Condensate trap
Blocked Condensate Switch
Pressure & Temperature Gauge
ASME Relief Valve
(Available 30, 50, 60, 75,100, 125 or 150 psig)

ELECTRICAL DESIGN

Models 400-500:
- 120 VAC Only
Amp Draw: 7.0 Amps

Models 650-1000L:
- 120 VAC Only
Amp Draw: 8.0 Amps
- PCB (Printed Circuit Board) Fused Connections

24VAC/5VDC - Low Voltage PCB
- EMS Communications
(Dual RJ45 Jacks for Peer-To-Peer or ModBus)
- Boiler Options (Sensors)
- Pumps (Boiler, DHW, System) & Auxiliary Devices

* Flue system material shall be capable of continuous operation at 210°F or higher and shall be certified to UL 1738 – venting system for gas-burning appliances cat II, III and IV.

OPTIONAL EQUIPMENT

_____ Hydronic Kit (Boiler Circulation Pump, Pump Flange Kit and Condensate Neutralizer)

_____ External High Limit Temperature Control, Manual Reset

_____ Condensate Neutralizer

_____ Supply Header Temperature Sensor: ☐ Direct Immersion ☐ Well Immersion (with Well)

_____ Outdoor Air Temperature Sensor: ☐ Wired ☐ Wireless

_____ EMS Signal Converter Kit (Converts Energy or Building Management System 0-10v signal to 4-20mA)

_____ Motorized Isolation Valves

_____ Alarm Buzzer with Silencing Switch

_____ PVC Starter Kit

_____ Universal Communications Gateway (BACnet, Metasys, Modbus or Lonworks)

_____ Conductor Sequencing Panel

The Conductor manages multiple condensing & non-condensing, small & large heat output, new and/or existing boilers (full modulation or on-off), and steam or hot water applications. It helps improve system efficiency by selecting and modulating the right boiler to match operating conditions. The Conductor offers a single point boiler plant Energy Management System (EMS) interface including Modbus TCP/IP, Modbus RTU RS485, BACnet/IP and BACnet MSTP standard. If Lonworks needed, add for the separate Lonworks gateway.

_____ Extended Warranty

☐ 3 Year Parts ☐ 5 Year Parts ☐ 10-Year Parts ☐ 5-Yr. Prts/Lbr. ☐ 10 Yr. Prts/Lbr

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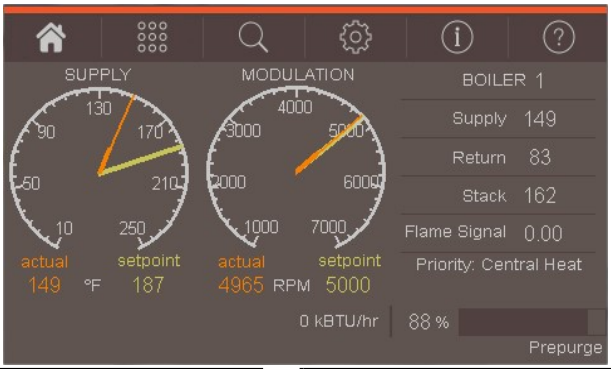
CONCERT CONTROL FEATURES



Dashboard - Color Touchscreen Display, 4"

- Intuitive Icon Navigation
- "Quick" Setup Menus
- *Real Time BTU/H Display

Two (2) Temperature Demand Inputs

- Outdoor Air Reset Curve for Each Input
- Time of Day Setback Capability
  (Enviracom Thermastat must be installed)

Three (3) Pump Control

- Boiler Pump With On/Off or Variable Speed Control
- Domestic Hot Water (DHW) Pump
- System Pump
- Alternative Control to Combustion
  Air Damper or Standby Loss Damper
- Pump Overun for Heat Dissipation
- Pump Exercise
- Pump Rotor Seizing Protection

Peer-to-Peer Boiler Communications

- Multiple Size Boiler Sequencing Up to 8 Units
- *Two (2) Boiler Start/Stop Trigger
- Lead Boiler Automatic Rotation

Energy Management System (EMS) Interface

- *Firing Rate and Water Temperature Based
  Algorithms for Multiple Boilers; loss of EMS
  signal defaults to local boiler settings
- 4-20mAdc Input/Output (0-10Vdc Optional Converter)
- ModBus Input/Output (BACnet or LonWorks
  Optional Gateway)
- Simultaneous Interface with Peer-to-Peer

*USB Data Port Transfer

- Upload Settings Between Boilers
- Download Parameters for Troubleshooting
- Import Data into .CRV Formatted Files for Performance
  Analysis

Energy Efficiency Enhancer

- Anti-Cycling Technology
- Multipler boiler base load common rate
- Outdoor Air Temperature Reset Curve
- Warm Weather Shutdown
- Boost Temperature & Time
- Ramp Delay
- Over-Temperature Safeguarding

Self-Guiding Diagnostics

- Identifies Fault
- Describes Possible Problems
- Provides Corrective Actions

*Time/Date Stamp on Alarms and Lockouts

Unmatched Archives

- Historical Trends - Collects Up to 4 months Data
- Event History - Up to 3000 Alarms, Lockouts and Cycle & Run Times
- Alarm - Limit String Faults, Holds, Lockouts and Others
- Cycle & Run Time - Boilers & Pumps
- Resettable (Lockouts/Alarms/Cycles & Run Time)

Domestic Hot Water Priority

- DHW Tank Piped With Priority in the Boiler Loop
- DHW Tank Piped as a Zone in the System With
  the Pumps Controlled by the Concert Control
- DHW Modulation Limiting

Status Screens
Sensor Monitoring and Control

Other Features

- *Factory Default Settings
- Three Level Password Security
- Frost Protection
- Contractor Contacts (Up to 3)
- Low Water Flow Safety Control & Indication
- Proportion Integral Derivative (PID) Parameters for
  Central Heat, DWH, Sequencer and Fan
- Built-in Brown-Out Protection

* Unique to Concert