



Argo
TECHNOLOGY, INC.

An ECR International Company

AMB-4 Modular Boiler Control

Electronic Sequencing Control for Full Modulation of up to 4 Boilers

Designed for apartment and office buildings, industrial plants, nursing homes, hospitals, schools, hotels and other institutions.

The AMB-4 uses an advanced 16-bit Microcomputer which requires no on-site "Keypad programming" - making this control easy to install and provides virtually trouble free operation.

Fuel savings combined with consistent comfort are the immediate dividends of using this ARGO control on any hot water heating system.

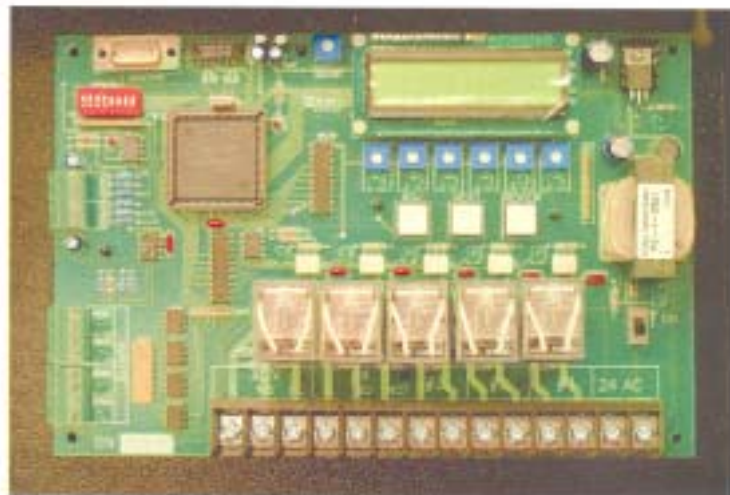
The AMB-4 microprocessor uses P.I.D. processing to regulate the supply water temperature from one to four boilers by turning them on or off, based on the outdoor air temperature and heating load. When Domestic Hot Water (DHW) is required, the control will operate the boiler(s) to regulate the supply water temperature in order to satisfy the DHW requirements.

The system pump is turned on when there is a Heat Demand and the outdoor temperature is cool enough to require heat in the system. When a combustion air damper is used, it must be opened before the first boiler is fired.



Features Include

- Domestic Hot Water Priority Mode
- Adjustable Outdoor Temperature Setback Ratio
- Digital Display
- Automatic 24 hour or Manual Rotation of Lead Boiler
- Lo/Hi Fire Control Mode
- Warm weather shutdown for the boilers and pump
- Minimum Boiler Water Temperature
- Fixed 20° Night setback option



Technical Specifications

Dimension (H x W x D)	-11 3/4" x 13" x 4 1/2"
Weight	-13 LBS
Ambient	-30 to 120°F
Power Supply	-24 VAC - 10% 60 HZ 20VA Min. Class II
Relay Capacity	-3 x SPST, 24 VAC 10 Amps -2 x SPDT 24 VAC
Sensors	-Accurate with up to 500 feet 18 AWG cable
Control Accuracy (Temp.)	- ± 1°F
Control Processing	-PID Algorithm

Features

Indicator Lights	-Power, Boiler Stages, Sensor Inputs, Adjustment Mode
Stage 1-3	-Isolated SPST relay contacts close to operate each Boiler Stage
Stage 4	-Isolated SPDT relay contacts to operate either 4th Boiler Stage or option. (eq. pump start up)
Aux Output	-Isolated SPDT relay contacts to operate circulator pump or open air damper before first boiler is fired (Request/AC)
Test Buttons	-Initiates and controls pre-programmed test run (Hold Down Adj., Next, and Review Button)
Error Message	-Sensor faults are indicated in LED Disp.

Dial & Switch Settings

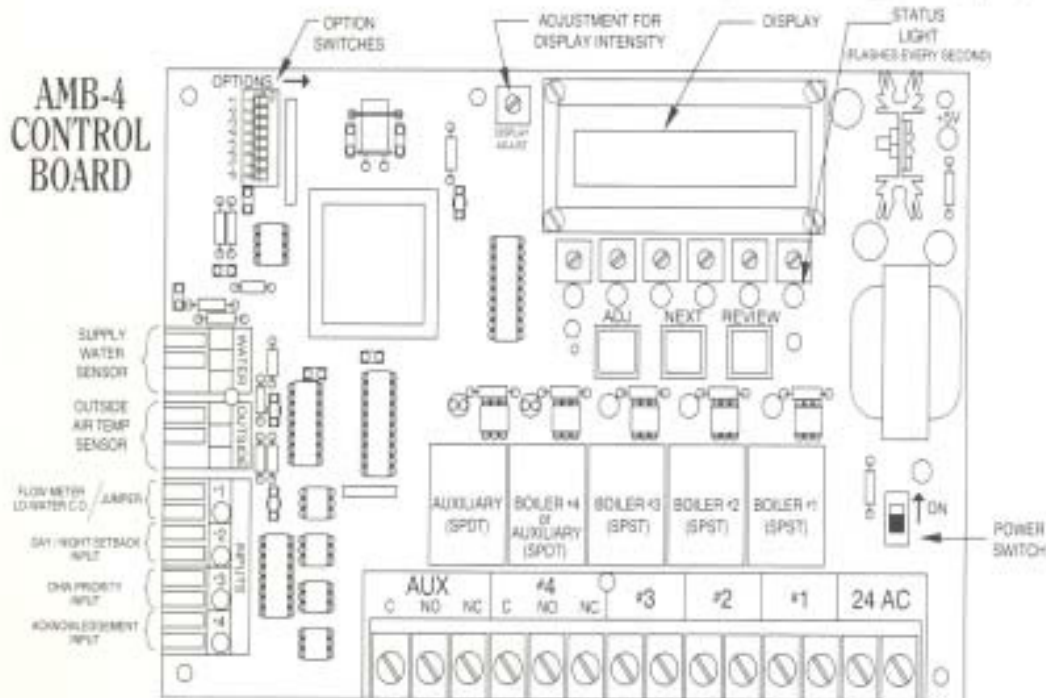
Desired Setpoint Temperature	-150° F to 248° F
Outdoor Temperature Setback Ratio	-.2 to 5.0
Temperature Differential	-1° F to 10° F
Minimum on time each Boiler	-2 to 500 seconds
Summer Shutdown Temperature	-50° F to 148° F
Minimum Supply Water Temperature	-50° F to 148° F
Adjust Button	-To display adjustments - To advance push next button.
Next Button	-Displays actual sensor readings and desired control point.
Review Button	-Scrolls through all settings on display.

Option Readouts

Stage 1-4 -Switches	-To switch each stage off or into operating mode
(5) Rotate Switch	-To allow rotation of lead boiler firing sequence based on hours of use (re-ranks after 24 hours of use). If off, configures stage 1 to be first on last off regardless of hours of use.
(6) Priority Switch	-Allows override of outdoor setback and summer shutdown to bring supply water temp to maximum set point for DHW. Requires signal at Input #3 to activate.
(7 & 8) Option Switches	-Allows optional configuration of HiLo fire mode Request/acknowledgement contacts and Input. Custom programming also available.

Display Readouts

Actual outdoor sensor reading	Minimum water temperature
Actual water sensor reading	# of Boilers
Control point temperature (setpoint minus outdoor temp x setback ratio)	Priority Option (on/off)
Setpoint Temperature	Rotation (on/off)
Setback Ratio	Lead Boiler
Temp Differential	Day/Night setback (Input 2)
Minimum on time	Flow input (Input 1)
Shutdown temperature (summer)	Priority Input (Input 3)
	Request/Acknowledgement (Input 4)



For additional information
on AMB-4
Request Brochure 2195



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