

HIGH ALTITUDE KIT INSTRUCTIONS

050/075/100/150/299 KIT #550002819

Kit installation shall be completed by qualified agency.

⚠️ WARNING

Fire, explosion, asphyxiation and electrical shock hazard. Improper installation could result in death or serious injury. Read this instruction and understand all requirements, including requirements of authority having jurisdiction, before beginning installation. Installation not complete until appliance operation verified per Installation, Operation & Maintenance Manual provided with boiler.

Use this kit for boilers installed at high altitude locations, 2000 feet or higher.

Elevation [Feet]	Boiler Firing Rate
2000 ~ 4500	Boiler operates on rate.
Above 4500	Boiler derates 4% every 1000 feet beyond 4500 feet

NOTICE

Do not use this kit for boilers installed below 2000 feet above sea level.

Tools required:

- Slotted Screwdriver
- 1/4" Nut Driver

NOTICE

Replacement control module has factory default settings. Record all user parameters before replacing existing control. Refer to chart in START UP PROCEDURE in Installation, Operation & Maintenance Manual. Replacement control modules are universal to all models. Boiler model number will need to be selected on first use.

1. Follow instructions TO TURN OFF GAS TO APPLIANCE found on Operating Instructions label on boiler or in Installation, Operation & Maintenance Manual. Verify all electrical power to boiler is turned off.

⚠️ WARNING

Electrical shock hazard. Turn OFF electrical power supply at service panel.

2. Remove front jacket panel(s) per instructions found in Installation, Operation & Maintenance Manual.

⚠️ WARNING

Burn hazard. Verify heat exchanger has cooled or use appropriate personal protection equipment.

High Altitude kit is currently not available for 200 MBH model.

Figure 1 - Sight Glass

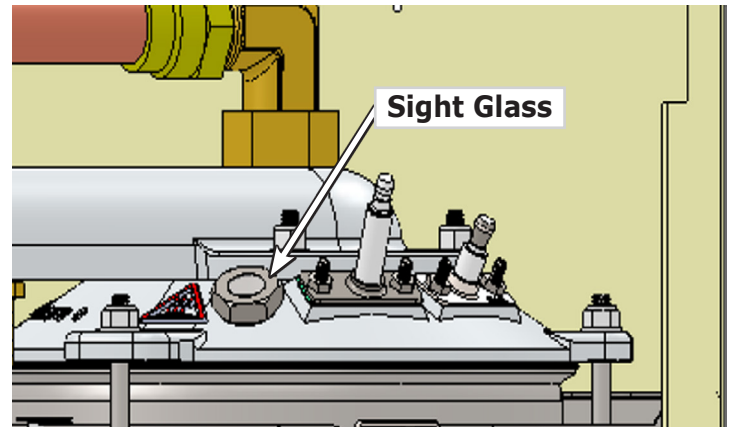
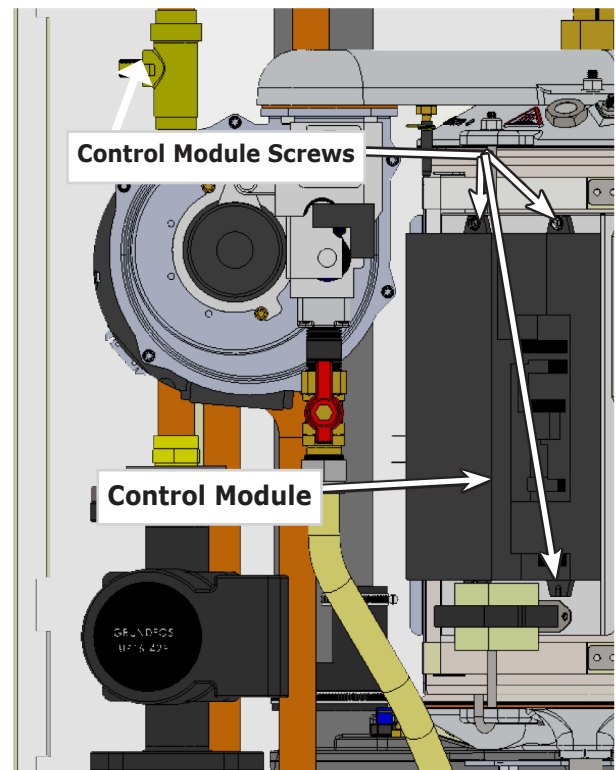


Figure 2 - Vertically Mounted Control Module 050/075/100/150/200



CONTROL MODULE

3. Inspect combustion chamber through sight glass. Verify flame is not present. See figure 1.
4. Disconnect wire harnesses from control module.
5. Locate control module, may be vertically or horizontally mounted. See figures 2, 3, 4 and 5.
6. Remove (4) 8-32 x 3/8 screws holding control module in place.
7. Attach new control module with (4) 8-32 x 3/8 screws. Verify new control includes High Altitude Label on it.

High Altitude

This control was programmed for boilers to run on full rate at high altitude application of 2,000 - 4,500 feet 240010117

8. Connect wire harness to control module.

NOTICE

Control module has two (2) 4-wire connectors (J2 and J4). Wires into plugs are labeled to assist in connection to proper jack.

9. Select Model Number
 - Press Reset, + and - Keys and hold simultaneously, while restoring electrical power to boiler.
 - Continue pressing keys for approximately 30 seconds while control module initializes.
 - Use +/- keys to select model shown on rating plate. Press Enter to complete selection.

Models are stored in the following order:

75
100
150
200
50
299

10. Verify model selection in boiler status menu.
 - Installer Menu can be accessed by simultaneously holding 'Menu' and 'Enter' keys for 5 seconds.
 - Press 'Enter' to access boiler status menu.
 - Verify low RPM. See Table 1.
 - Scroll to verify high RPM speed.
 - If high or low RPM does not match speed in Table 1 for corresponding boiler model. Return to step 9 and re-select model number shown on rating plate.
11. Program Control Module Configurations and Settings recorded in Section 9 of Installation, Operation & Maintenance Manual.
12. Verify proper operation by following START UP PROCEDURE in Installation, Operation & Maintenance Manual.

Figure 3 - Vertically Mounted Control Module 299

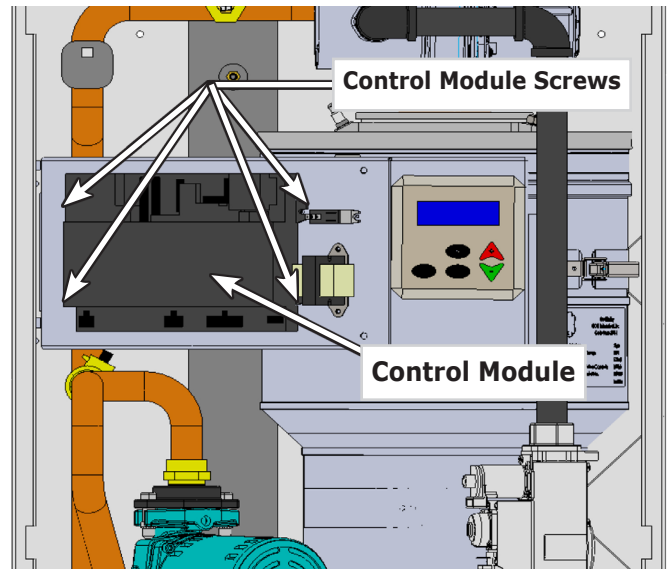
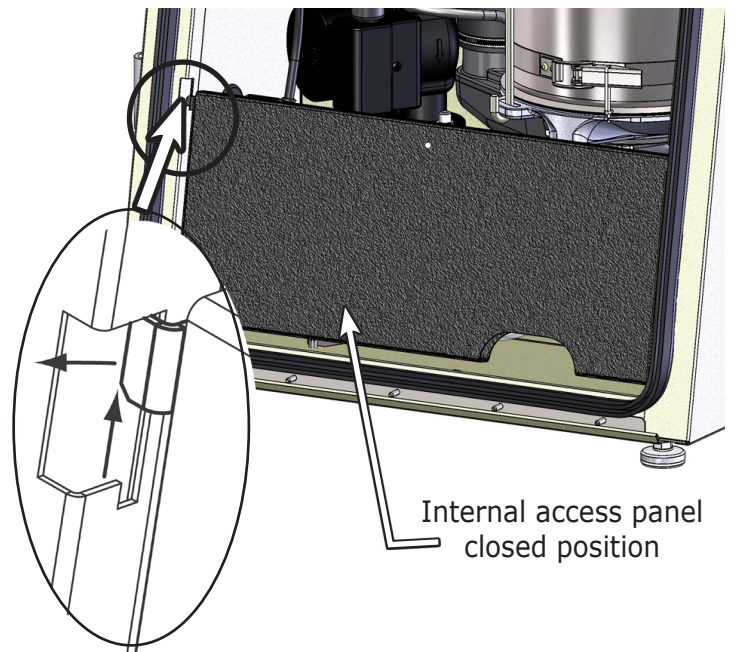
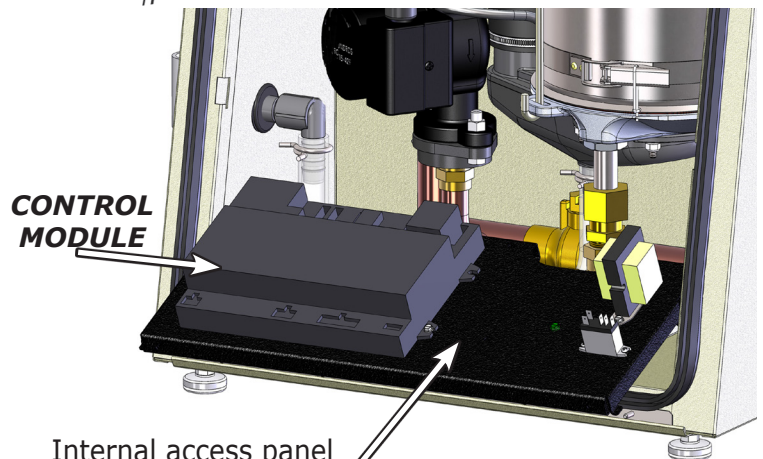


Figure 4 - Internal Access Panel Mounted Control Module



Internal access panel closed position



Internal access panel open position

CONTROL MODULE

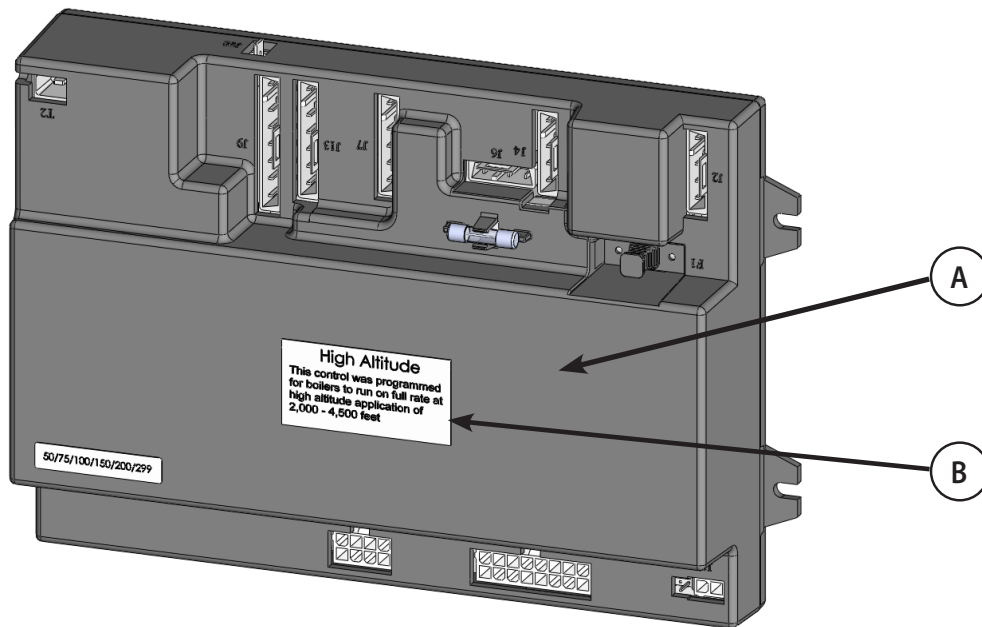
Table 1 - RPM SPEED

MODEL	LOW	HIGH
50	1680	4080
75	2100	5460
100	2400	6300
150	2100	5520
299	2880	7200

High Altitude Kit is not available for Model 200.

13. Install front jacket panel(s) following instructions found in Installation & Maintenance Manual.
14. Sign the High Altitude Conversion label and place on outside of boiler housing.

Figure 5 - Control Module



050/075/100/150/299 High Altitude Kit # 550002819			
ITEM	DESCRIPTION	PART #	QTY
A	Control Module Programmed for High Altitude	-	1
B	High Altitude Label	-	1
*	Instructions	240010113	1

Altitude	Derate %	
0-2000 feet	0% – No kit is needed	
2000 to 4500	0%	With high altitude kit installed
4501 to 5500	4%	
5501 to 6500	8%	
6501 to 7500	12%	
7501 to 8500	16%	
8501 to 9500	20%	
9501 to 10500	24%	

Example : Boiler is installed at 8000 feet altitude

$$\frac{8000 - 4500}{1000} \times 4\% = 14\%$$

At 8000 feet of elevation with high altitude kit installed, boiler will have capacity reduction of 14%.

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