

INSTALLATION INSTRUCTIONS FOR AMB 4 AND AMB 8 CONTROLLERS ON COMMERCIAL SERIES BOILERS

P/N 240006898, Rev. 1.0 [08/07]

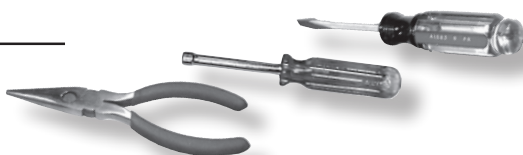
▲ Safety Considerations

Installing and servicing air-conditioning equipment can be hazardous. Only trained and qualified service personnel should install, repair, or service air conditioning equipment. *(The use of safety glasses is recommended.)*

⚠ WARNING: Before removing any access panel, disconnect power to unit. Failure to do so could result in serious injury or electric shock!!

▲ Tools Required

- Flat Head Screwdriver
- ¼ Inch Nut Driver
- Pliers



PARTS INCLUDED

AMB4A	AMB8A
AMB4A Controller	AMB8A Controller
240006455 Harness, AMB to Burner Base	240006455 Harness, AMB to Burner Base
240006456 Harness, AMB, High Volt Pwr.	240006456 Harness, AMB, High Volt Pwr.
240006700 Harn., AMB, Base #1, BLK	240006700 Harn., AMB, Base #1, BLK
240006701 Harn., AMB, Base #2, BRN	240006701 Harn., AMB, Base #2, BRN
240006702 Harn., AMB, Base #3, BLU	240006702 Harn., AMB, Base #3, BLU
240006703 Harn., AMB, Base #4, RED	240006703 Harn., AMB, Base #4, RED
240000062 Wire Ties (x8)	240006704 Harn., AMB, Base #5, ORG
201000001 Screws #8 (x4)	240006705 Harn., AMB, Base #6, YEL
	240000062 Wire Ties (x12)
	201000001 Screws #8 (x4)

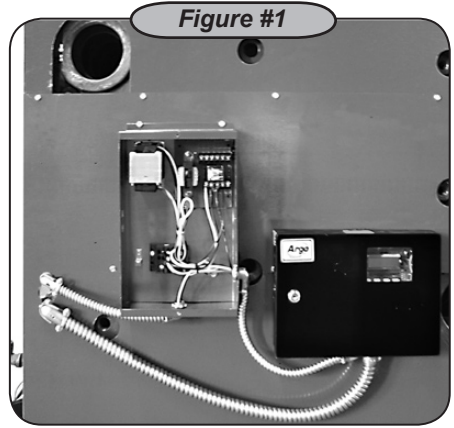
INSTALLATION INSTRUCTIONS

NOTE: For convenience the Commercial boiler is designed to accommodate either left or right hand control mounting. The AMB control unit will easily mount on the same side as the main controls. Pre drilled holes have been provide in the sheet metal end panels to be used for the mounting of the AMB controller. All harnesses have been designed for this mounting location.

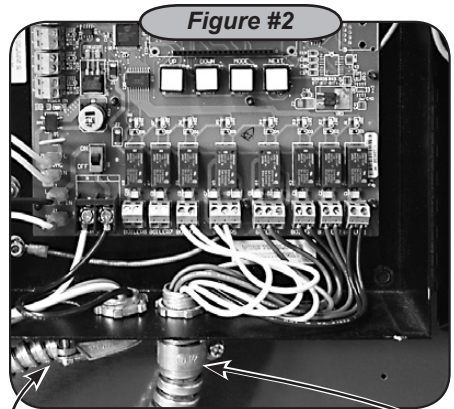
AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

INSTALLATION

- 1) Locate the mounting holes for the AMB controller on the side panel of the Commercial Series boiler. Then, using the four (4) #8 Screws provided, mount the AMB controller to the side of the boiler. **Figure #1**

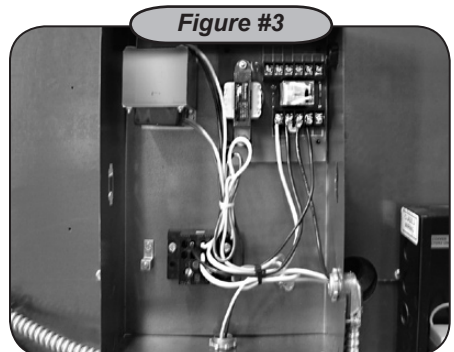


- 2) Mount the High Volt harness (240006456) to the bottom of the AMB controller. Use the knock out hole provided nearest to the L, N connections on the circuit board. Connect the Black wire to L, White to N and Green to the ground stud provided. **Figure #2**



High volt harness # 240006456 AMB - Burner harness #240006455

- 3) Mount the other end of the High Volt harness (240006456) to the side of the control box. Connect the black wire to the relay at terminal position #3. Connect the white wire to the power block at terminal position L2 (N). Connect the green wire to the grounding screw.



Refer to the wiring diagrams provided (614002306, 614002307, 614002309) and **Figures #3 & #4.**

AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

- 4) Mount the AMB - Burner harness (#240006455) to the bottom of the AMB controller. Use the knock out provided that is located closest to center of the circuit board. **Figure #2**
- 5) Using the **Table #1**, connect the color coded wires from the harness to the terminal blocks assigned for each boiler's burner assembly. Unused wires should be kept insulated with a wire nut or cap to protect them from contacting the inside of the control box or circuit board. **Figure #2**

Figure #4

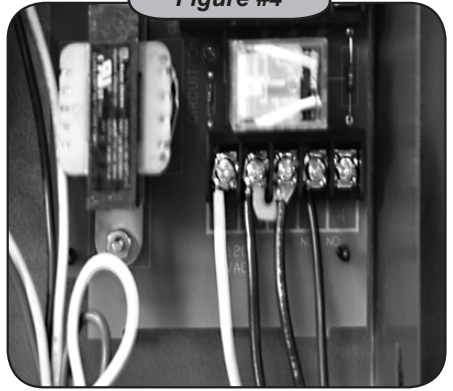


Figure #5

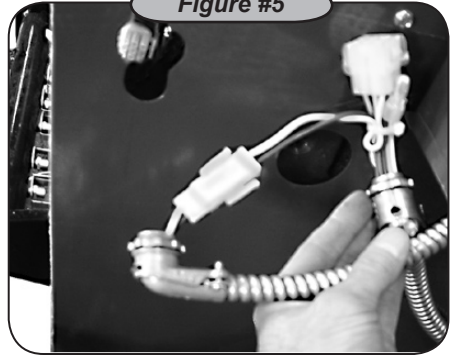
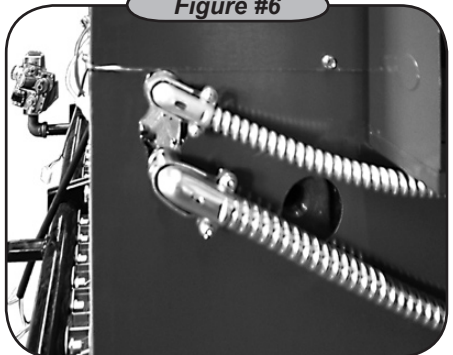


Figure #6



Base	Wire Harness Color Assignment
1	Black
2	Brown
3	Blue
4	Red
5	Orange
6	Yellow

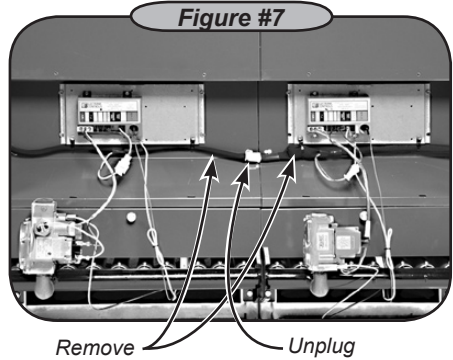
- 6) Remove the existing two wire harness from the (control box to burner assembly) and unplug the connector. Connect the two position plug from the AMB - Burner harness (#240006455) into the existing two position plug from the control box. Then mount the end of the AMB - Burner harness (#240006455) and two wire harness from the control box to the key-hole shaped slots provided near the burner assembly. **Figures #5 & #6**

AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

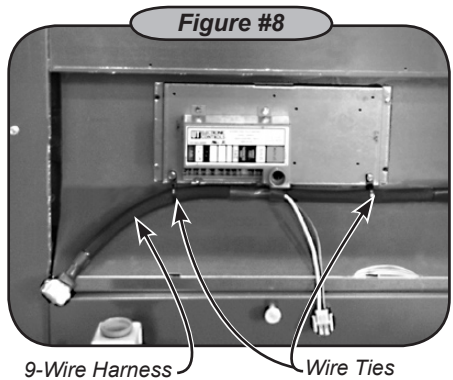
INSTALLATION OF THE BURNER HARNESSSES

Each existing burner assembly comes equipped with a two-wire harness that is cascaded between boiler burner assemblies. These will need to be removed and replaced with the nine-wire harnesses provided for the AMB controller.

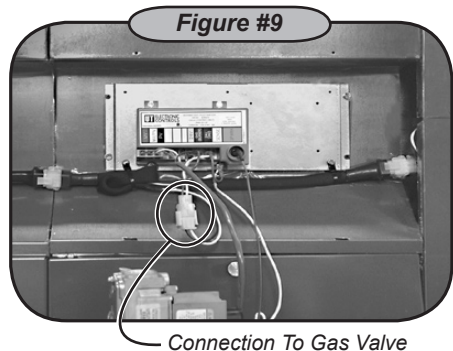
- 7) Remove the vestibule cover located above the burner assembly to gain access to the burner controls.
- 8) Unplug and remove each of the two-wire harness for each burner assembly. **Figure #7**



- 9) Using the wire color assignment from the **Table #1**, mount each of the AMB nine-wire harnesses in place of the two-wire harnesses. Replacement wire ties are provided. Use these to secure each of the nine-wire harness below the ignition module. Make sure all loose wires are secured. **Figure #8**



- 10) Plug the two position connector into each of the gas valve assemblies. Then connect the mating nine-position plugs for each adjacent burner harnesses. Burner harness number one (black) will then connect the harness mounted in step #6 from the AMB controller. **Figure #9**

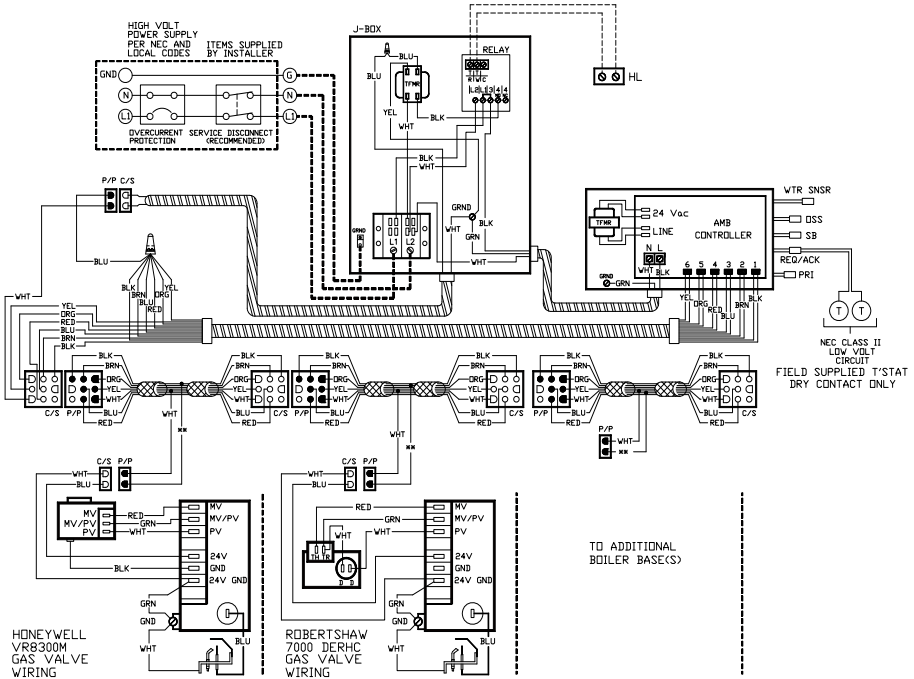


- 11) When the installation is complete replace all access panels for the vestibule, control box and AMB controller.

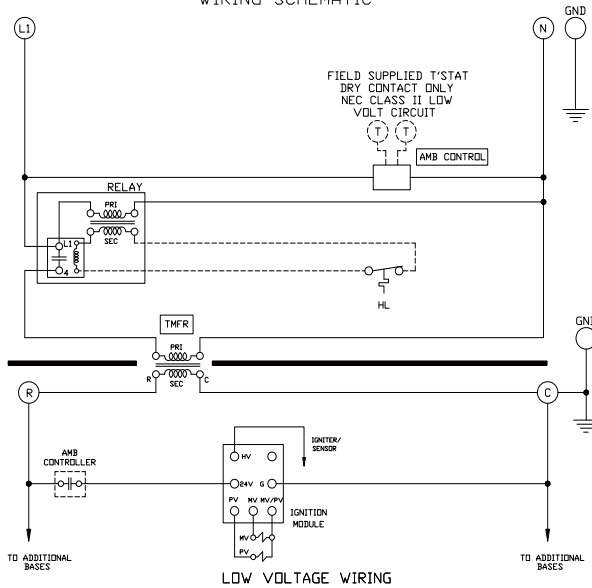
For testing and operation of the AMB control unit, refer to the manual provided with the AMB controller.

AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

COMMERCIAL BOILER, W/ AMB CONTROL 1, 2 & 3 BASE



WIRING SCHEMATIC



LEGEND

- FS = FIELD SUPPLIED
- HL = HIGH LIMIT
- PRI = PRIORITY
- ODS = OUTDOOR SENSOR
- SB = SETBACK
- MV = MAIN VALVE
- PV = PILOT VALVE
- PSS = PILOT SAFETY SHUTDOWN
- WTS = WATER TEMPERATURE SENSOR
- P/P = PLUG/PIN
- C/S = CAP/SOCKET

----- HIGH VOLT FIELD INSTALLED
 - - - - - LOW VOLT FIELD INSTALLED

**** HARNESS COLOR CODING**

BASE NUMBER	COLOR
1	BLK
2	BRN
3	BLU
4	RED
5	DRG
6	YEL

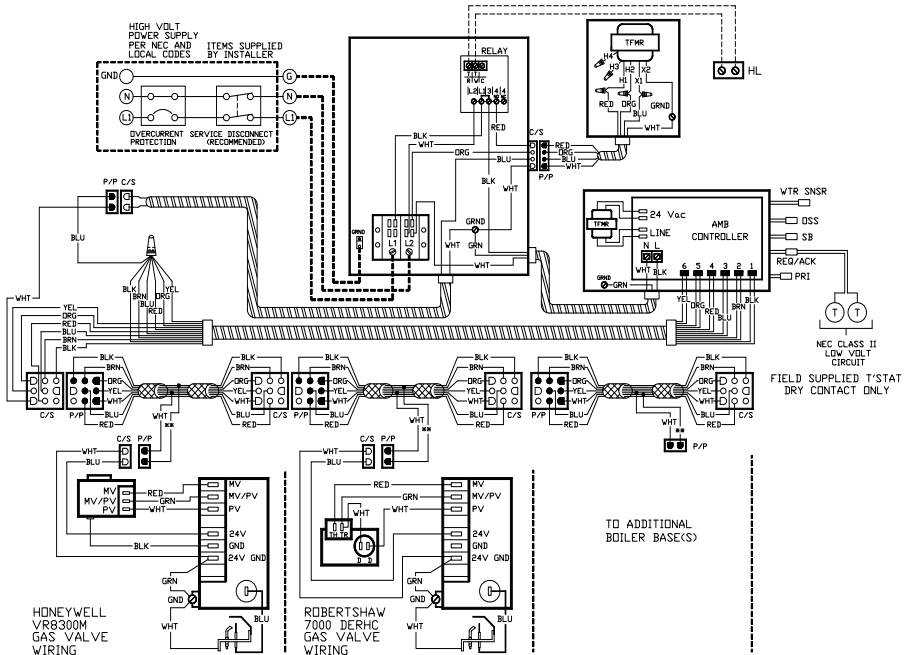
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LOW VOLTAGE WIRING

Drawing # 614002306

AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

COMMERCIAL BOILER, W/ AMB CONTROL 4, 5 & 6 BASE



WIRING SCHEMATIC

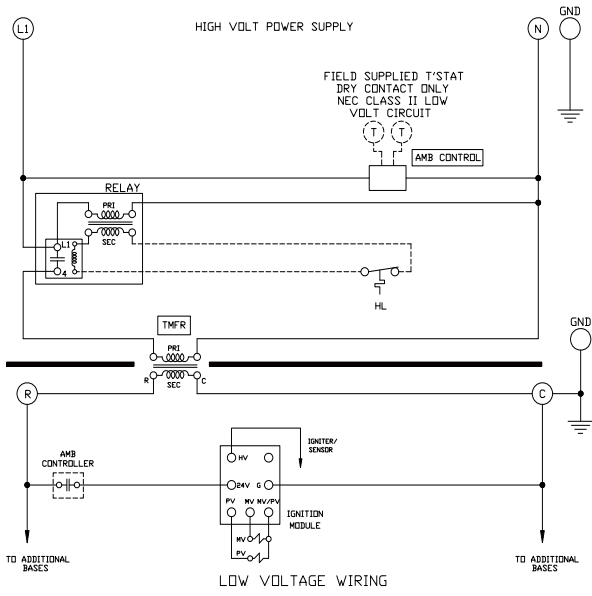
LEGEND

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- C/S = CAP/SOCKET

----- HIGH VOLT FIELD INSTALLED
 ----- LOW VOLT FIELD INSTALLED

HARNESS COLOR CODING

BASE NUMBER	COLOR
1	BLK
2	BRN
3	BLU
4	RED
5	DRG
6	YEL

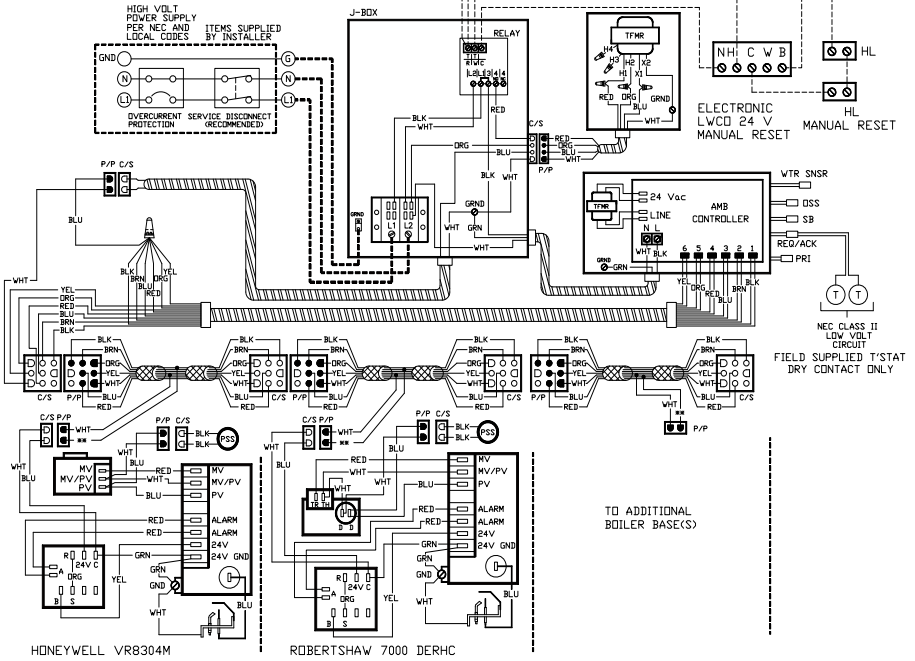


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Drawing # 614002307

AMB 4 & AMB 8 KIT INSTALLATION INSTRUCTION

COMMERCIAL BOILER, CSD-1 W/ AMB CONTROL 2-6 BASE



WIRING SCHEMATIC

