

# Installing tN4 Reset Modules 420, 422, and 423 with Modulating Boilers

The following table describes the essential setting required for the tN4 Reset Modules 420, 422 and 423, when installed with some of the most common modulating boilers on the market. For a complete list of compatible boilers, please refer to tekmar Service Bulletin SB 032.

**Table 1: Essential Settings on the tN4 System Control's for Several Different Boilers**

Boiler Model	Fire Delay (min)	Boiler Motor (sec)	Minimum Modulation (%)	Maximum Modulation (%)	Required Equipment from Boiler Manufacturer	Boiler Control Setting		
						Parameter	Setting	Reference
Buderus GB142, 162, 312	0:40	10	30	100	EM10 Module	None	None	None
Burnham Alpine	0:40	30	0	100	AIM2 Contact: ACI Ph: 888-967-5224	Central Heating Modulation Source	4-20mA	p.109 I&O Manual
Dunkirk Q95M-200	2:15	10	18	100	HAM 0-10VDC Module	Parameter 34 [P .34]	[- - 04]	p.3 Ham Installation Instructions
Heat Transfer Products Elite	0:24	24	16	100	None	Function 16	0-10 Volt	p.57 Installation Manual
						Function 17	Fan Speed	
Heat Transfer Products Munchkin	0:24	60	16	100	Munchkin Interface Board	Function 16	1	p.60 Boiler Manual
						Function 17	1	
Laars NeoTherm	1:20	30	0	100	AIM2 Contact: ACI Ph: 888-967-5224	None	None	None
Lochinvar Knight	0:50	16	20	100	None	H3	Active	p.24 Service Manual
Lochinvar Sync	0:50	16	20	100	None	Demand conf	3	p.19 Service Manual
Peerless PureFire REV2	0:15	50	20	100	Interface Adapter PFA-1	Heating Mode	Mode 5	p.43 I&O Manual
Triangle Tube Prestige Solo	2:35	90	18	100	None	Parameter 45	02	p.54 I&M Manual
Weil-McLain Ultra Series 3	1:30	60	20	100	None	ADD'L HEAT DEMAND	Type 4	p.64 Boiler Manual
Viessmann Vitodens 100	0:30	60	22	100	None	None	None	None

It is important to note that on the tekmar Reset Module's 420, 422 and 423 the dip switch labeled Boil On-Off/Mod must be set to Mod position when using the control to modulate the fire rate on a modulating boiler.

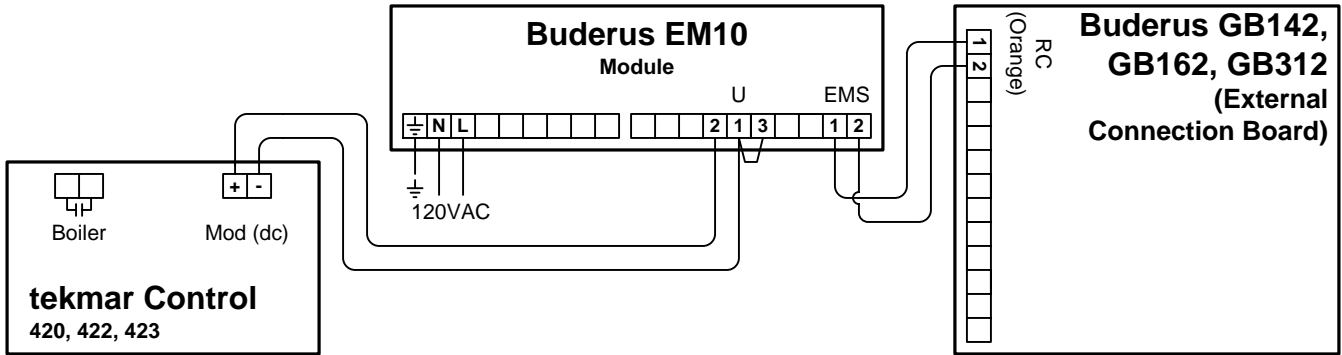
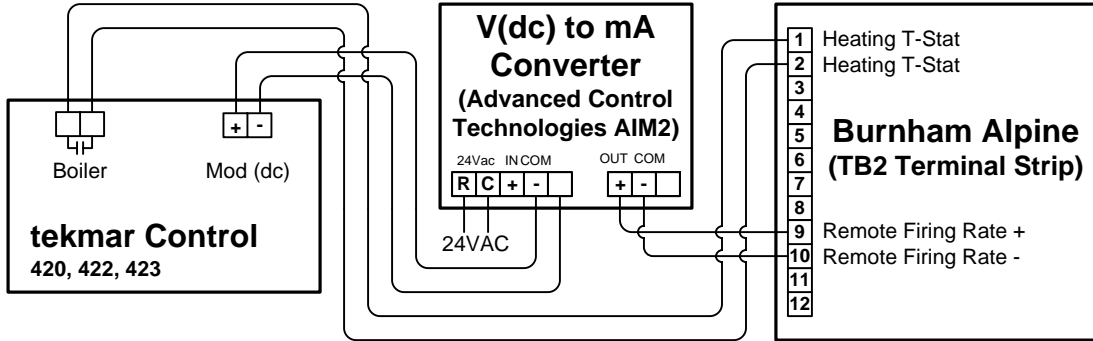


Figure 1: Wiring Diagram for a Buderus GB142, GB162 and GB312 Boilers to a tekmar tN4 Reset Module



AIM2 Settings:

Input DIP switches 1, 4, 6 ON...all others OFF, Output DIP switches 1, 3, 4, 6 ON...all others OFF  
 Jumper J2 in E position for voltage input, Jumper J3 to NRM, J4 to I, and J5 to SRC

Figure 2: Wiring Diagram for a Burnham Alpine Boiler to a tekmar tN4 Reset Module

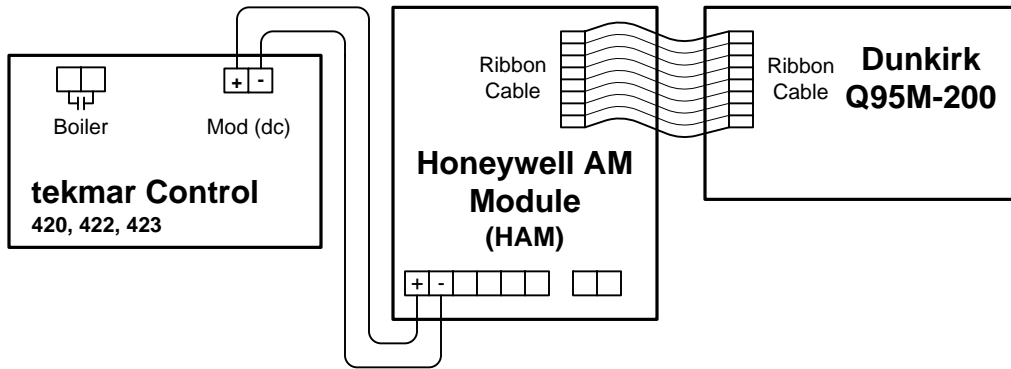


Figure 3: Wiring Diagram for a Dunkirk Q95M-200 Boiler to a tekmar tN4 Reset Module

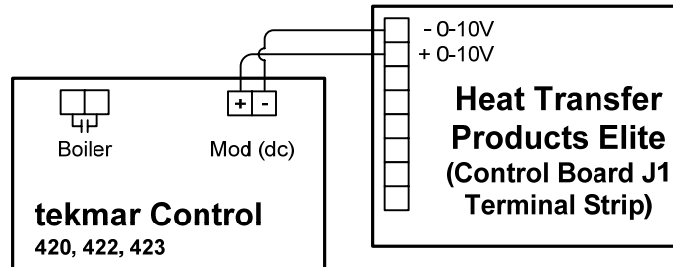


Figure 4: Wiring Diagram for a Heat Transfer Products Elite Boiler to a tekmar tN4 Reset Module

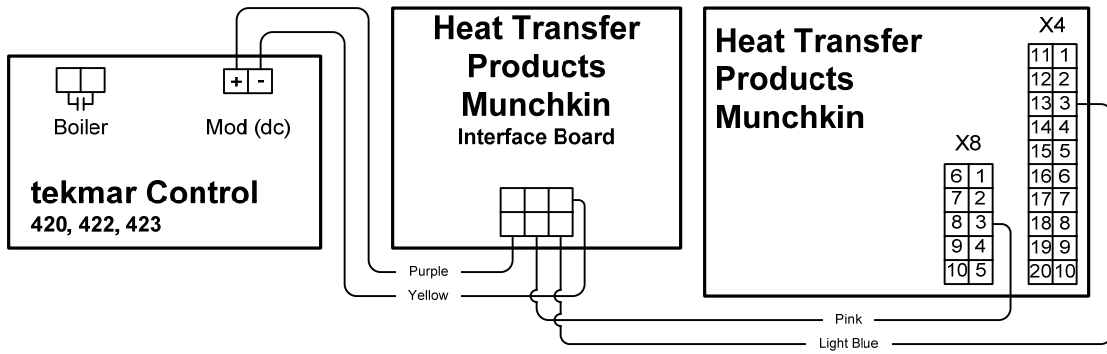
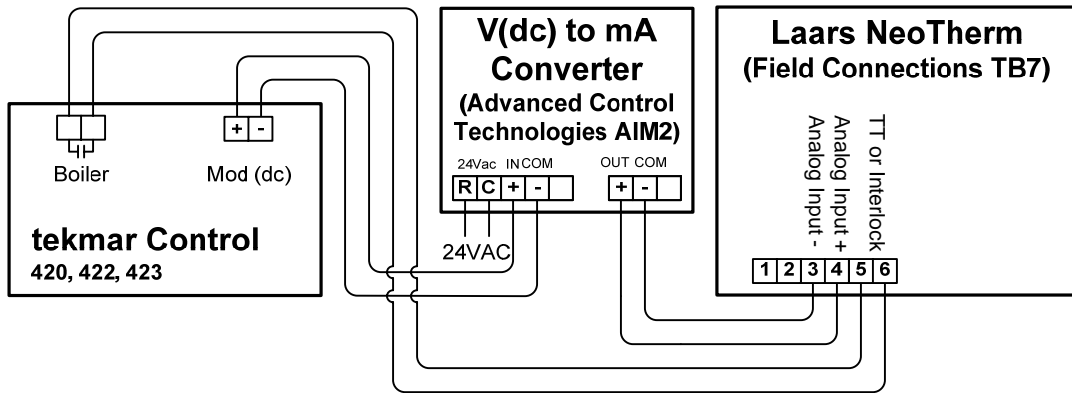


Figure 5: Wiring Diagram for a Heat Transfer Products Munchkin Boiler to a tekmar tN4 Reset Module



AIM2 Settings:

Input DIP switches 1, 4, 6 ON...all others OFF, Output DIP switches 1, 3, 4, 6 ON...all others OFF  
 Jumper J2 in E position for voltage input, Jumper J3 to NRM, J4 to I, and J5 to SRC

Figure 6: Wiring Diagram for a Laars NeoTherm Boiler to a tekmar tN4 Reset Module

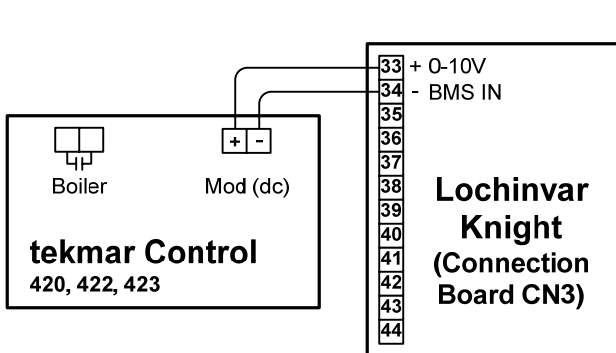


Figure 7: Wiring Diagram for a Lochinvar Knight Boiler to a tekmar tN4 Reset Module

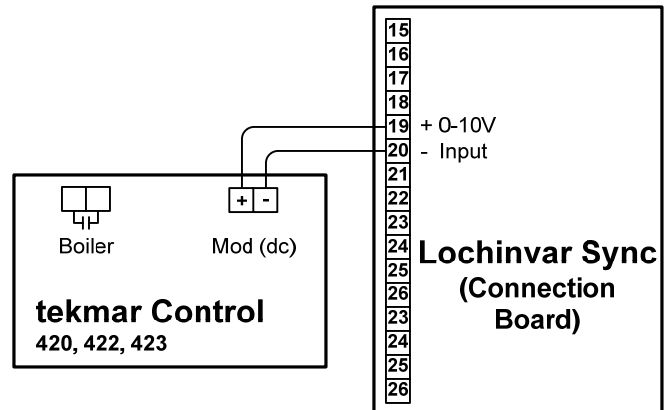


Figure 8: Wiring Diagram for a Lochinvar Sync Boiler to a tekmar tN4 Reset Module

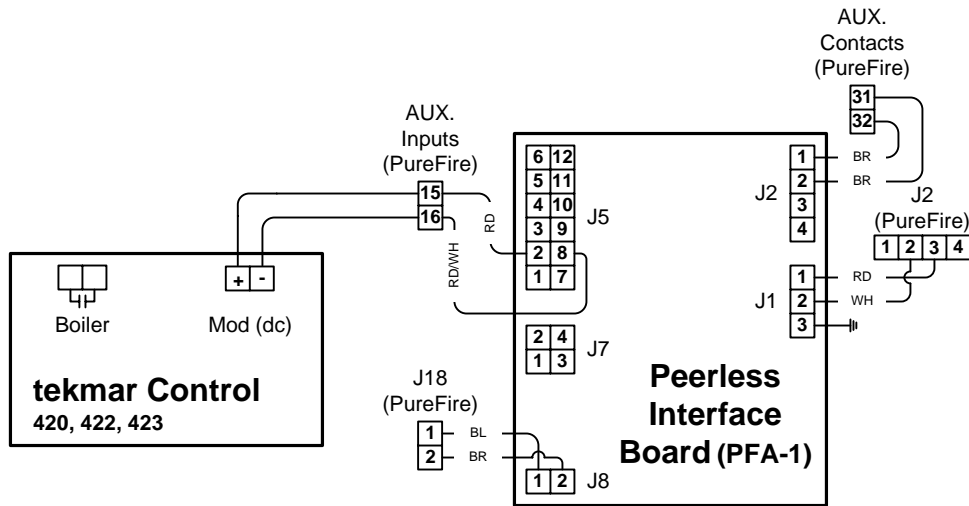


Figure 9: Wiring Diagram for a Peerless PureFire Boiler to a tekmar tN4 Reset Module

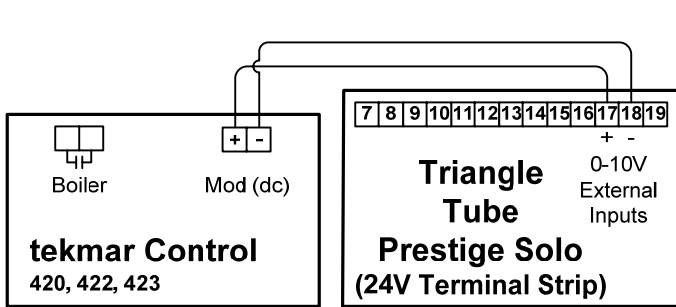


Figure 10: Wiring Diagram for a Triangle Tube Prestige Solo Boiler to a tekmar tN4 Reset Module

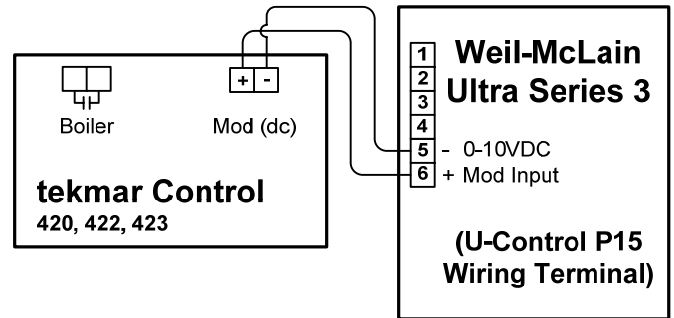


Figure 11: Wiring Diagram for a Weil-McLain Ultra 3 Boiler to a tekmar tN4 Reset Module

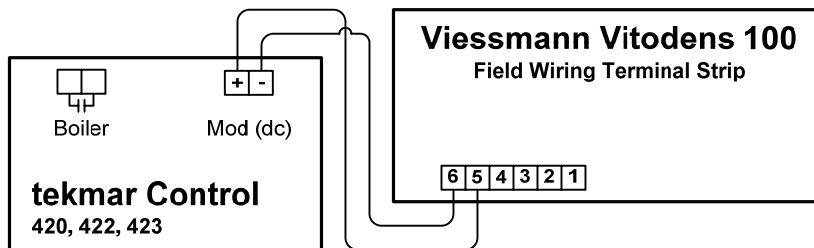


Figure 12: Wiring Diagram for a Viessmann Vitodens 100 to a tekmar tN4 Reset Module

**PLEASE 'NOTE':** Due to published changes made without notice by Boiler Manufacturers to their specifications and capabilities, tekmar Control Systems does not assume any responsibility for boiler manufacturers' amendments, modifications, deletions or changes nor does tekmar Control Systems accept any responsibility for the damage or personal injury due to unsafe and improper boiler operation that is guided by this 'Note' and by the manufacturer's installation and operating instructions.