

Application A257-1

System Description:

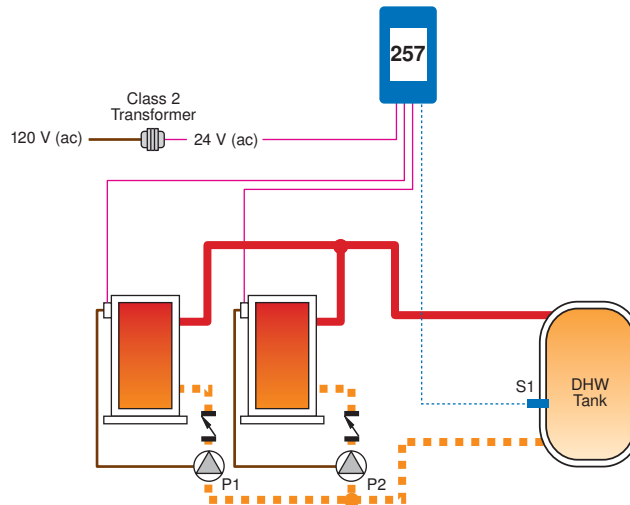
The 257 stages 2 single-stage boilers in order to maintain the DHW Target temperature as measured by the DHW Sensor. The boiler pumps operate off the boiler ignition control.

Mechanical

P1 = Boiler Pump 1

P2 = Boiler Pump 2

S1 = DHW Sensor 082

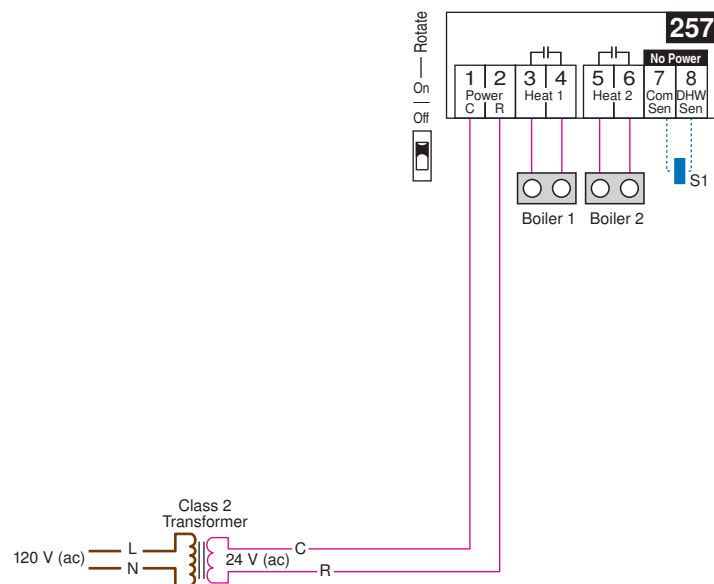


Electrical

S1 = DHW Sensor 082

DIP Switch Settings

Rotate = On



Concept Drawing: This is only a concept drawing, not an engineered drawing. It is not intended to describe a complete system, nor any particular system. It is up to the system designer to determine the necessary components for and configuration of the particular system being designed, including additional equipment, isolation relays (for loads greater than the control's specified output ratings), and any safety devices which in the judgement of the designer are appropriate, in order to properly size, configure and design that system and to ensure compliance with building and safety code requirements.

Application A257-2

System Description:

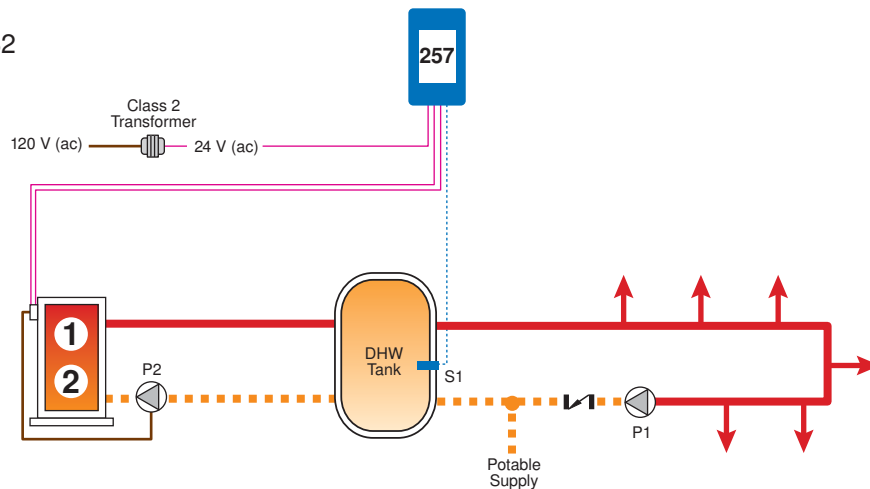
The 257 stages one 2-stage boiler in order to maintain the DHW Target temperature as measured by the DHW Sensor. The boiler pump operates off the boiler ignition control. The DHW recirculation pump is operated with an on/off switch or timer.

Mechanical

P1 = DHW Recirculation Pump

P2 = Boiler Pump

S1 = DHW Sensor 082

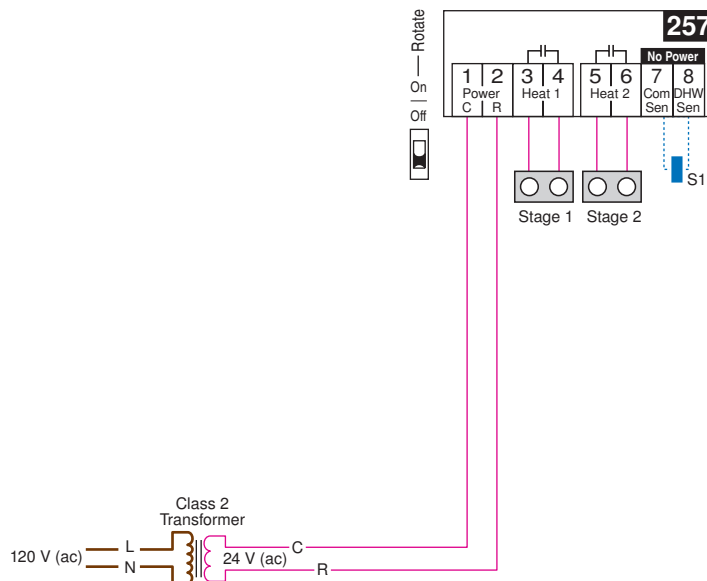


Electrical

S1 = DHW Sensor 082

DIP Switch Settings

Rotate = Off



Concept Drawing: This is only a concept drawing, not an engineered drawing. It is not intended to describe a complete system, nor any particular system. It is up to the system designer to determine the necessary components for and configuration of the particular system being designed, including additional equipment, isolation relays (for loads greater than the control's specified output ratings), and any safety devices which in the judgement of the designer are appropriate, in order to properly size, configure and design that system and to ensure compliance with building and safety code requirements.

Application A 257-3

System Description:

The 257 stages 2 single-stage boilers in order to maintain the DHW Target temperature as measured by the DHW Sensor. Two DHW tanks are piped in parallel providing equal flow through each tank. The boiler pumps operate off the boiler ignition control. The DHW recirculation pump is operated with an on /off switch or timer.

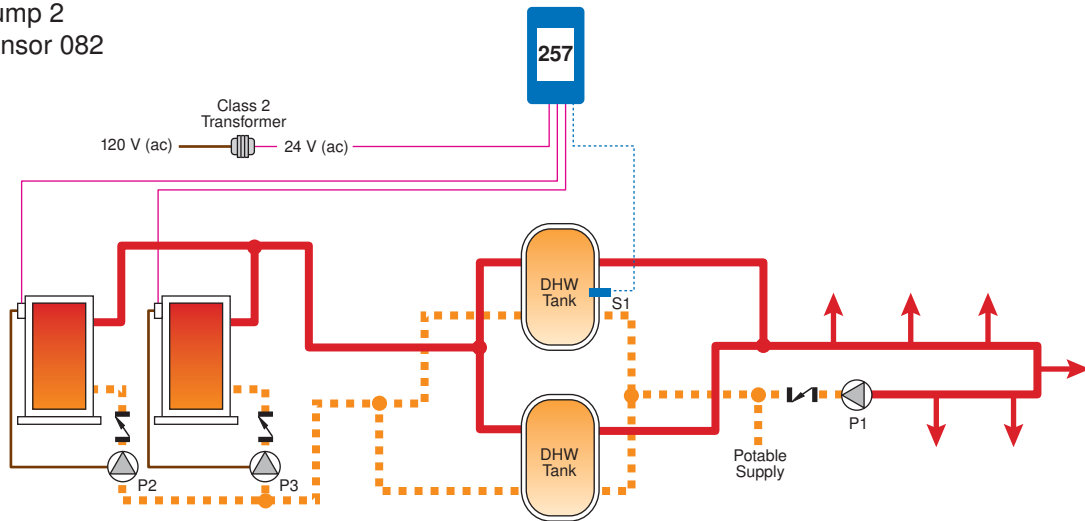
Mechanical

P1 = DHW Recirculation Pump

P2 = Boiler Pump 1

P3 = Boiler Pump 2

S1 = DHW Sensor 082

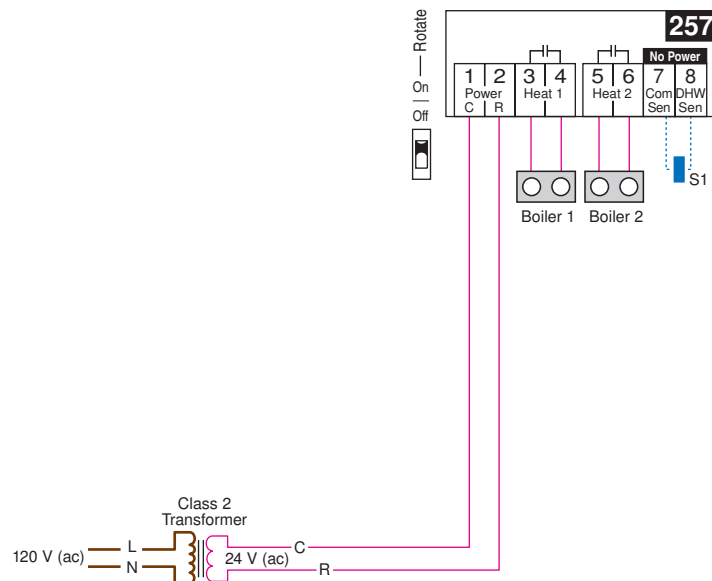


Electrical

S1 = DHW Sensor 082

DIP Switch Settings

Rotate = On



Concept Drawing: This is only a concept drawing, not an engineered drawing. It is not intended to describe a complete system, nor any particular system. It is up to the system designer to determine the necessary components for and configuration of the particular system being designed, including additional equipment, isolation relays (for loads greater than the control's specified output ratings), and any safety devices which in the judgement of the designer are appropriate, in order to properly size, configure and design that system and to ensure compliance with building and safety code requirements.

Specifications:

The following are the recommended specifications for the DHW Control 257

- The control shall be able to operate a single two-stage boiler or two single-stage boilers
- The control shall be able to rotate two boilers
- The control shall count the number of relay running hours for each relay
- The control shall display the actual temperature measured at the DHW sensor
- The control shall have an adjustable DHW target temperature
- The control shall operate in either P (proportional) or PID (proportional, integral, derivative) mode
- The control shall have an adjustable inter stage delay in P mode
- The control shall have an auto differential setting in PID mode
- The control shall have a minimum on and off time for each boiler of 30 seconds
- The control shall display an error message if the DHW sensor has an open or short circuit
- The control shall turn off both stages if the DHW temperature rises 2°F above the target
- The control shall have a field test routine which closes each relay for 10 seconds



tekmar Control Systems Ltd., Canada
tekmar Control Systems, Inc., U.S.A.
Head Office: 5100 Silver Star Road
Vernon, B.C. Canada V1B 3K4
(250) 545-7749 Fax. (250) 545-0650
Web Site: www.tekmarcontrols.com