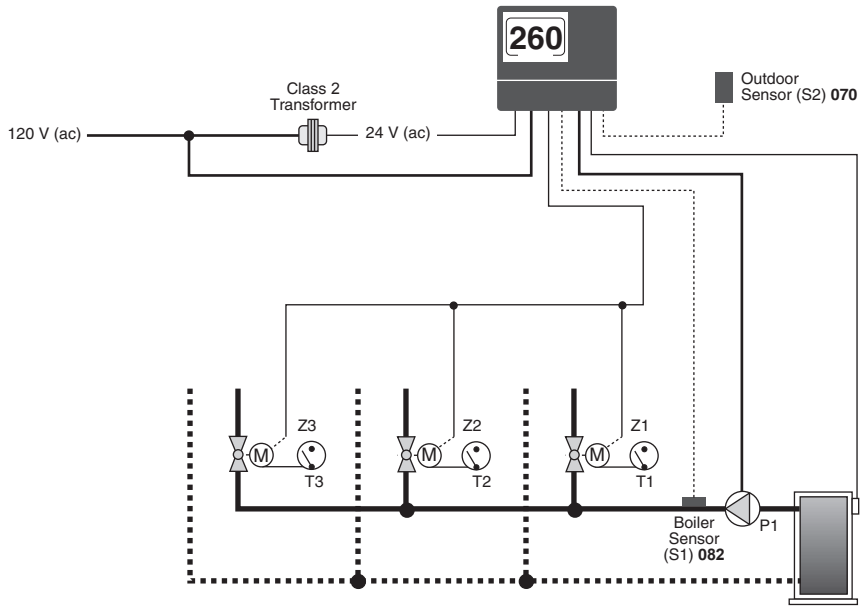
tekmar® - Application

Boiler Control 260

A 260-1

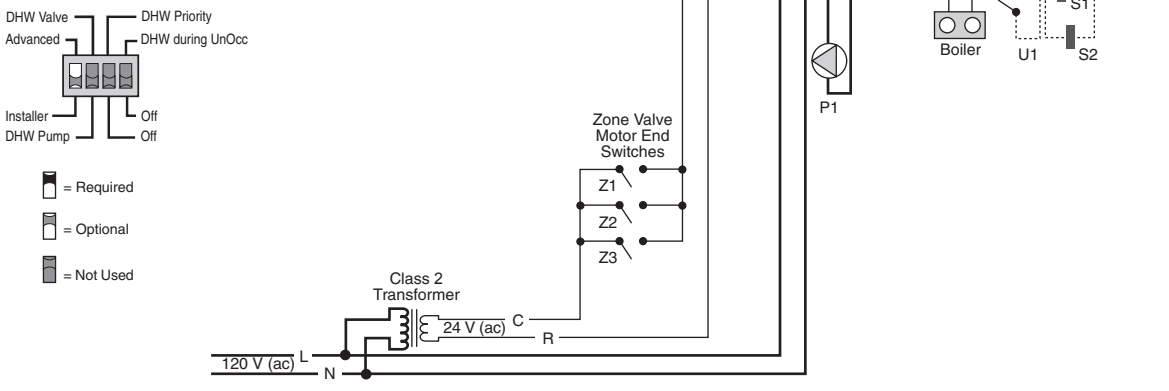
03/09

Mechanical



Electrical

P1 = Boiler Pump
S1 = Boiler Sensor 082
S2 = Outdoor Sensor 070
T1, ..., T3 = Thermostats
U1 = tekmar Timer 033 (optional)
Z1, ..., Z3 = Zone Valve Motor End Switches



Note: This is only a concept drawing. The designer must determine whether this application will work in his system and must ensure compliance with code requirements. Necessary auxiliary equipment, isolation relays (for loads greater than the specified tekmar internal relay ratings), and other safety and limit devices must be added.

System Operation

The Boiler Control 260 provides partial or full outdoor reset to three (or more) boiler zones. The boiler is operated at the temperature required in order to satisfy the load.

Heat Source Details The heat source can be either a high mass or low mass non-condensing or low temperature boiler.

Piping Details Thermostat controlled zone valves are piped into the boiler loop. The boiler pump (P1) provides circulation through these zones when heat is required.

Boiler Demand When heat is required in the boiler zones, the zone valve end switches send a *Boiler Demand* to the 260. The 260 turns on the boiler pump (P1). The boiler supply water temperature is based on the *Characterized Heating Curve* settings. The boiler is fired to satisfy the required boiler supply water temperature. Whenever the boiler is fired, the 260 aims to increase the boiler supply water temperature to at least the BOIL MIN setting.

All control functions and specifications are listed in the Product Catalog I 000 and Data Brochure D 260.

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All specifications are subject to change without notice.
Printed in Canada. A 260-1 03/09.

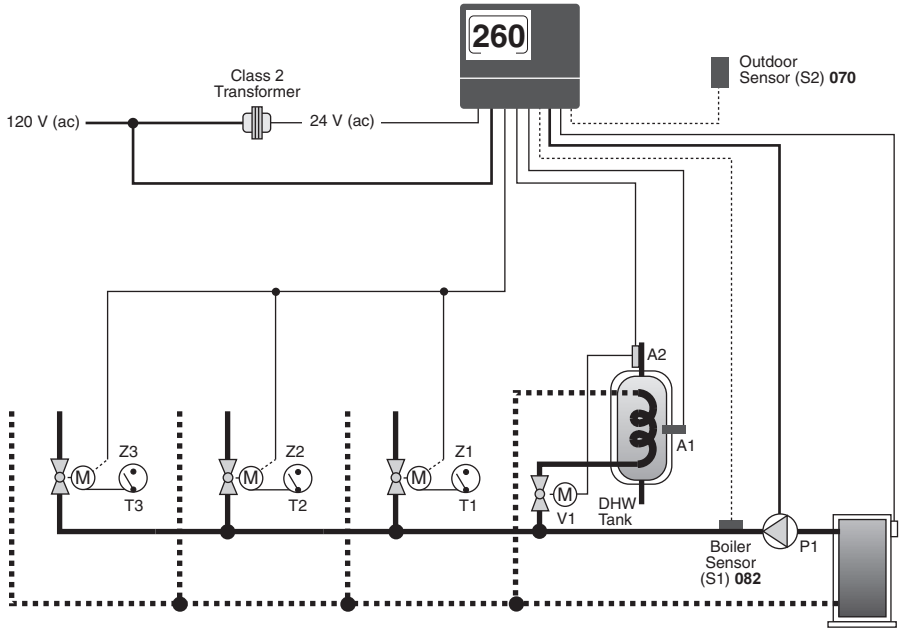
tekmar® - Application

Boiler Control 260

A 260-2

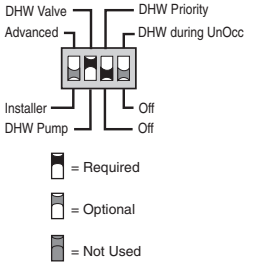
03/09

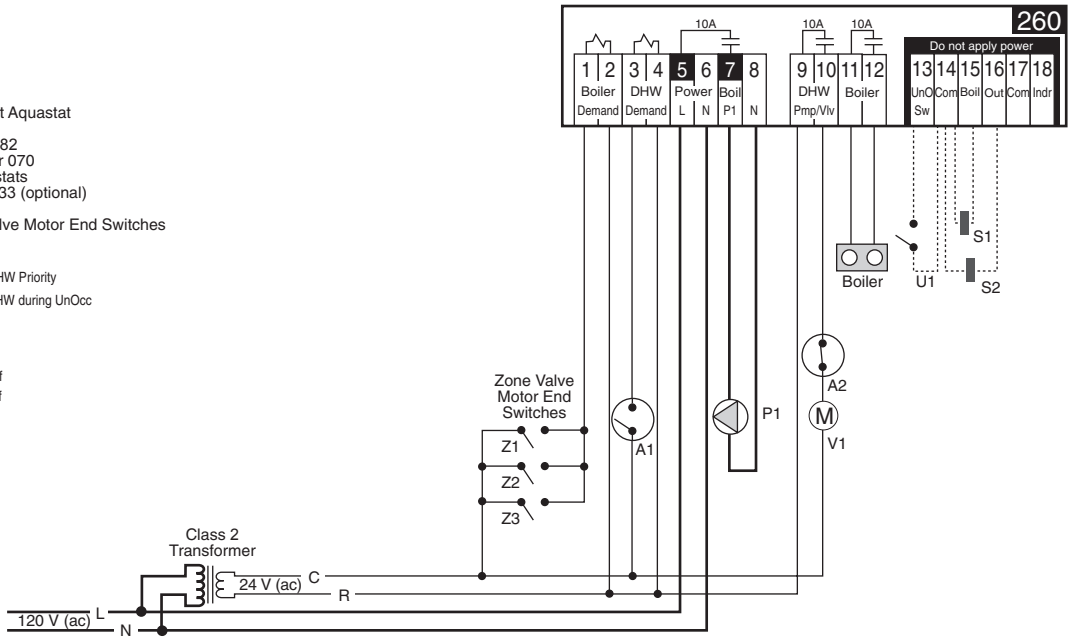
Mechanical



Electrical

A1 = DHW Aquastat
A2 = DHW High Limit Aquastat
P1 = Boiler Pump
S1 = Boiler Sensor 082
S2 = Outdoor Sensor 070
T1, ..., T3 = Thermostats
U1 = tekmar Timer 033 (optional)
V1 = DHW Valve
Z1, ..., Z3 = Zone Valve Motor End Switches





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System Operation

The Boiler Control 260 provides partial outdoor reset to three (or more) boiler zones. The 260 also controls the supply of heat to an indirect fired Domestic Hot Water (DHW) tank. The boiler is operated at the temperature required in order to satisfy the loads.

Heat Source Details The heat source can be either a high mass or low mass non-condensing boiler.

Piping Details Thermostat controlled zone valves are piped into the boiler loop. The boiler pump (P1) provides circulation through these zones when heat is required. Heat is supplied to the DHW tank through a DHW valve (V1).

DHW Demand When the DHW aquastat (A1) calls for heat, the 260 turns on the boiler pump (P1), opens the DHW valve (V1), and raises the boiler water temperature to at least 180°F (82°C).

Boiler Demand When heat is required in the boiler zones, the zone valve end switches send a *Boiler Demand* to the 260. The 260 turns on the boiler pump (P1). The boiler supply water temperature is based on the *Characterized Heating Curve* settings. The boiler is fired to satisfy the required boiler supply water temperature. Whenever the boiler is fired, the 260 aims to increase the boiler supply water temperature to at least the BOIL MIN setting.

All control functions and specifications are listed in the Product Catalog I 000 and Data Brochure D 260.

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Printed in Canada. A 260-2 03/09.

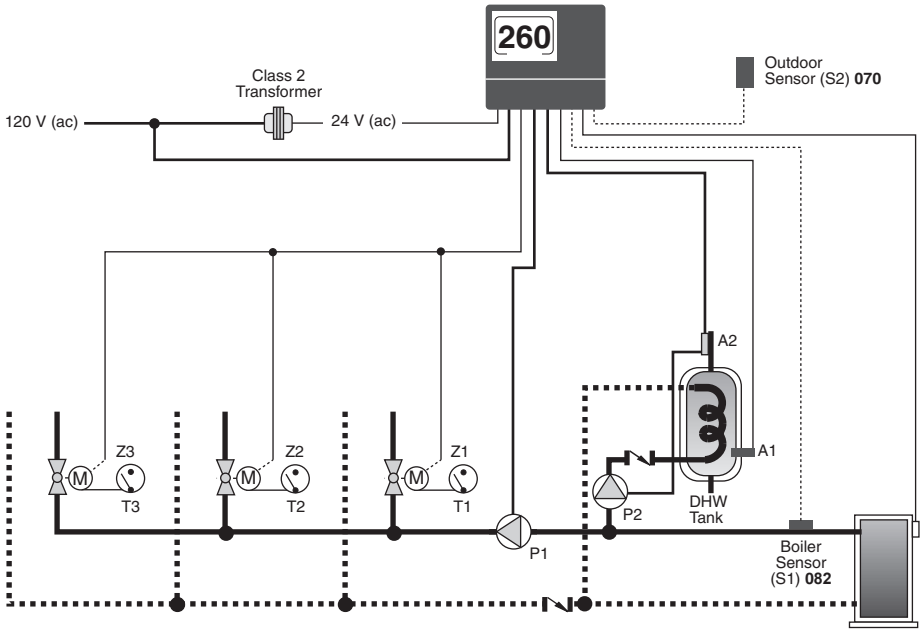
tekmar® - Application

Boiler Control 260

A 260-3

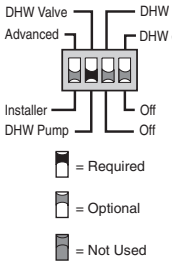
03/09

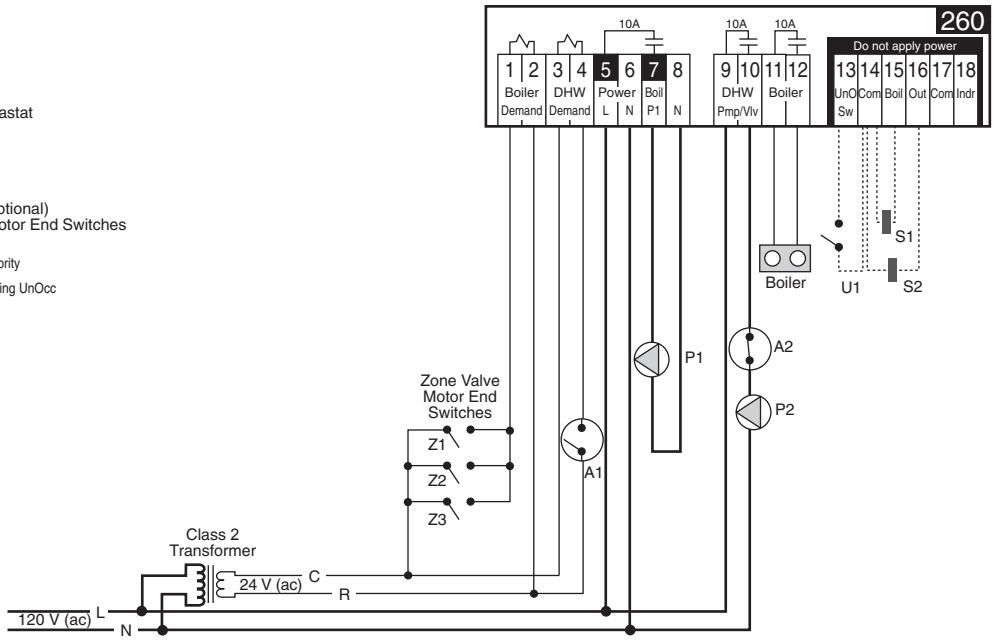
Mechanical



Electrical

A1 = DHW Aquastat
A2 = DHW High Limit Aquastat
P1 = Boiler Pump
P2 = DHW Pump
S1 = Boiler Sensor 082
S2 = Outdoor Sensor 070
T1, ..., T3 = Thermostats
U1 = tekmar Timer 033 (optional)
Z1, ..., Z3 = Zone Valve Motor End Switches





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System Operation

The Boiler Control 260 provides partial or full reset to three (or more) boiler zones. The 260 also controls the supply of heat to an indirect fired Domestic Hot Water (DHW) tank. The boiler is operated at the temperature required in order to satisfy the loads.

Heat Source Details The heat source can be either a high mass or low mass non-condensing or low temperature boiler. If using a low temperature boiler, refer to section C3 of the Data Brochure for additional information.

Piping Details Thermostat controlled zone valves are piped into the boiler loop. The boiler pump (P1) provides circulation through these zones when heat is required. Heat is supplied to the DHW tank through a DHW pump (P2).

DHW Demand When the DHW aquastat (A1) calls for heat, the 260 turns on the DHW pump (P2) and raises the boiler water temperature to at least 180°F (82°C). The control can provide DHW priority (refer to section C2 of the Data Brochure) by turning off the boiler pump (P1). Once the DHW demand is removed, the 260 performs a *DHW Post Purge* and possibly a *Mixing Purge*.

Boiler Demand When heat is required in the boiler zones, the zone valve end switches send a *Boiler Demand* to the 260. The 260 turns on the boiler pump (P1). The boiler supply water temperature is based on the *Characterized Heating Curve* settings. The boiler is fired to satisfy the required boiler supply water temperature. Whenever the boiler is fired, the 260 aims to increase the boiler supply water temperature to at least the BOIL MIN setting.

All control functions and specifications are listed in the Product Catalog I 000 and Data Brochure D 260.

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Printed in Canada. A 260-3 03/09.

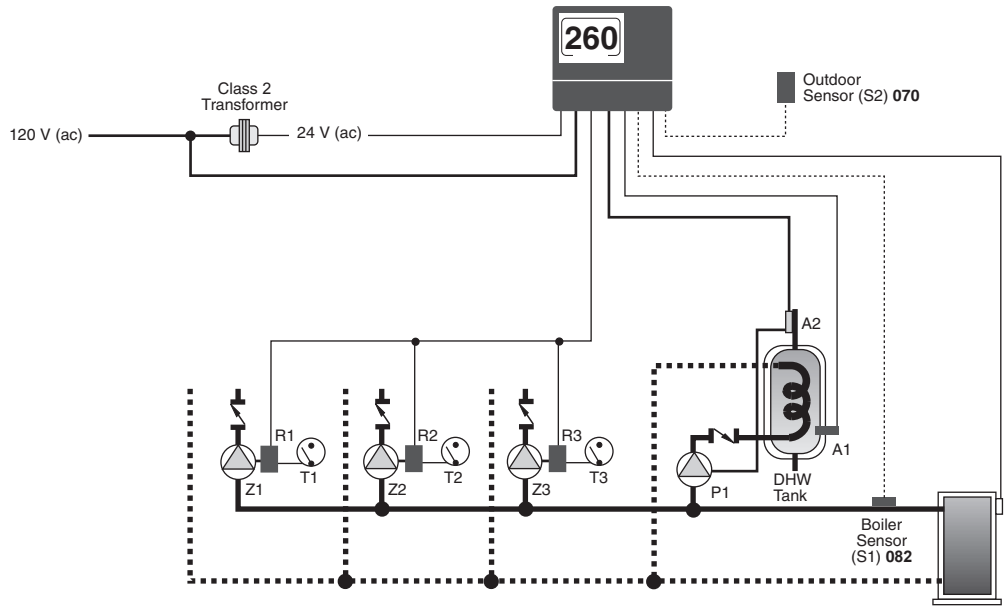
tekmar® - Application

Boiler Control 260

A 260-4

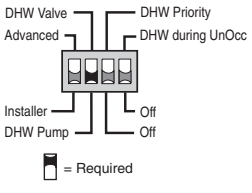
03/09

Mechanical



Electrical

A1 = DHW Aquastat
A2 = DHW High Limit Aquastat
P1 = DHW Pump
R1, ..., R3 = Relay 003
S1 = Boiler Sensor 082
S2 = Outdoor Sensor 070
T1, ..., T3 = Thermostats
U1 = tekmar Timer 033 (optional)
Z1, ..., Z3 = Zone Pumps



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System Operation

The Boiler Control 260 provides partial or full reset to three (or more) boiler zones. The 260 also controls the supply of heat to an indirect fired Domestic Hot Water (DHW) tank. The boiler is operated at the required temperature in order to satisfy the loads.

Heat Source Details The heat source can be either a high mass or low mass non-condensing or low temperature boiler. If using a low temperature boiler, refer to section C3 of the Data Brochure for additional information.

Piping Details Thermostat controlled zone pumps are piped into the boiler loop. Heat is supplied to the DHW tank through a DHW pump (P1).

DHW Demand When the DHW aquastat (A1) calls for heat, the 260 turns on the DHW pump (P1) and raises the boiler water temperature to at least 180°F (82°C). The control can provide DHW priority (refer to section C2 of the Data Brochure) by turning off the *Boil P1* contact and not allowing any of the boiler zones to operate. Once the DHW demand is removed, the 260 performs a DHW *Post Purge* and possibly a *Mixing Purge*.

Boiler Demand When heat is required in the boiler zones, the zone pump relays send a *Boiler Demand* to the 260. The boiler supply water temperature is based on the *Characterized Heating Curve* settings. The boiler is fired to satisfy the required boiler supply water temperature. Whenever the boiler is fired, the 260 aims to increase the boiler supply water temperature to at least the BOIL MIN setting.

All control functions and specifications are listed in the Product Catalog I 000 and Data Brochure D 260.

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