Application Brochure

Invita® WiFi Thermostat 564

HVAC Interface Module

Invita® Wi-Fi Thermostat

Wall Plate

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ENERGY STAR

Application *Page*

⚠ WARNING

THINK SAFETY FIRST

Please read carefully before proceeding with installation. Your failure to follow any attached instructions or operating parameters may lead to the product's failure.

Keep this Manual for future reference.

tekmar is not responsible for failures due to connectivity issues, power outages, or improper installation.

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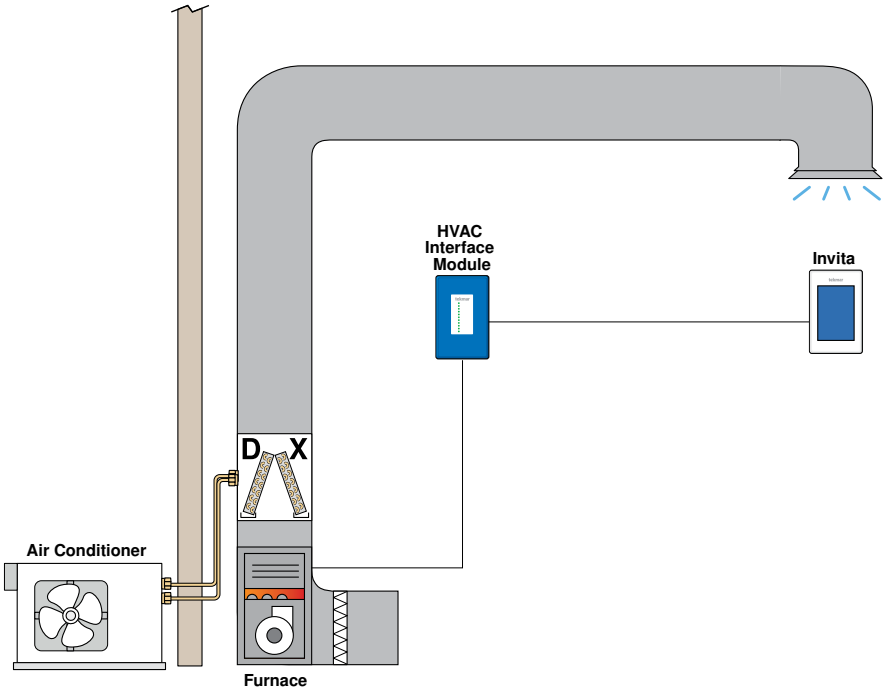
Furnace and AC

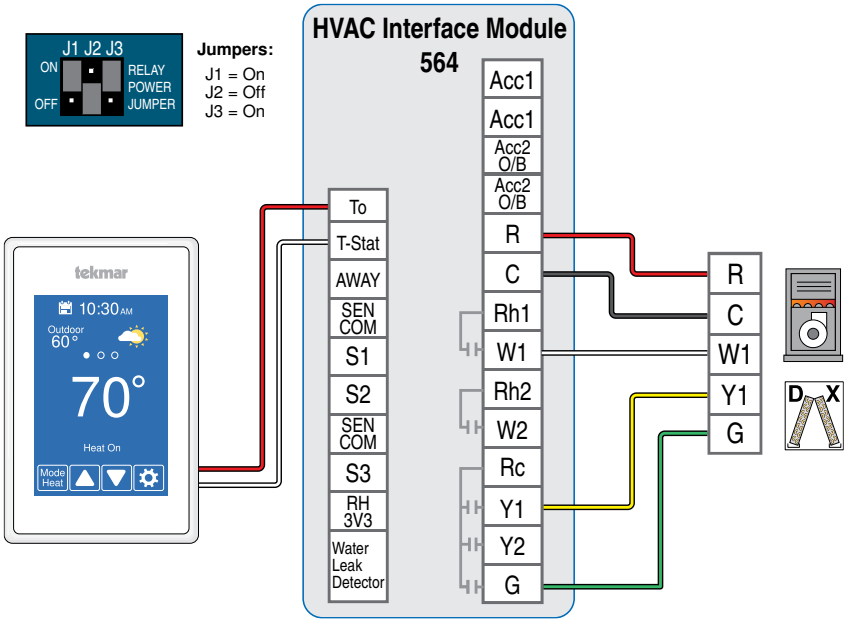
Application A564-1 *Mechanical*

Description

The Invita 564 operates a single stage furnace for heating and single stage air conditioner for cooling.



Electrical



Essential System Settings:

Heat Type = Conventional
Equipment = 1 Heat/1 Cool
Radiant Floor Heating = No
Accessory Relay 1 = Off
Accessory Relay 2 = Off
Fan Relay = With Y and W1

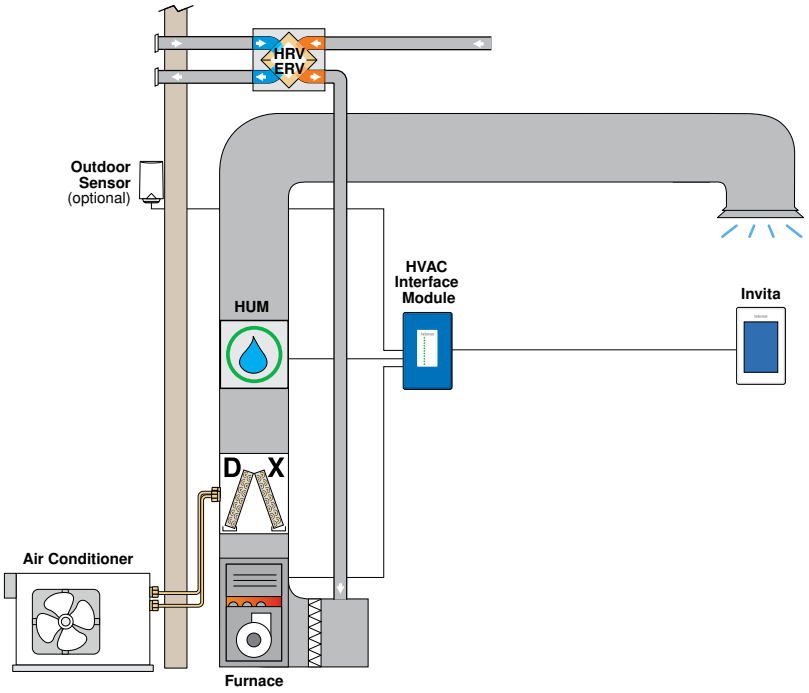
Concept Drawing: This is only a concept drawing, not an engineered drawing. It is not intended to describe a complete system, nor any particular system. It is up to the system designer to determine the necessary components for and configuration of the particular system being designed, including additional 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.

2-stage Furnace, 2-stage AC with HRV/ERV and Humidifier

Application A564-2 *Mechanical*

Description

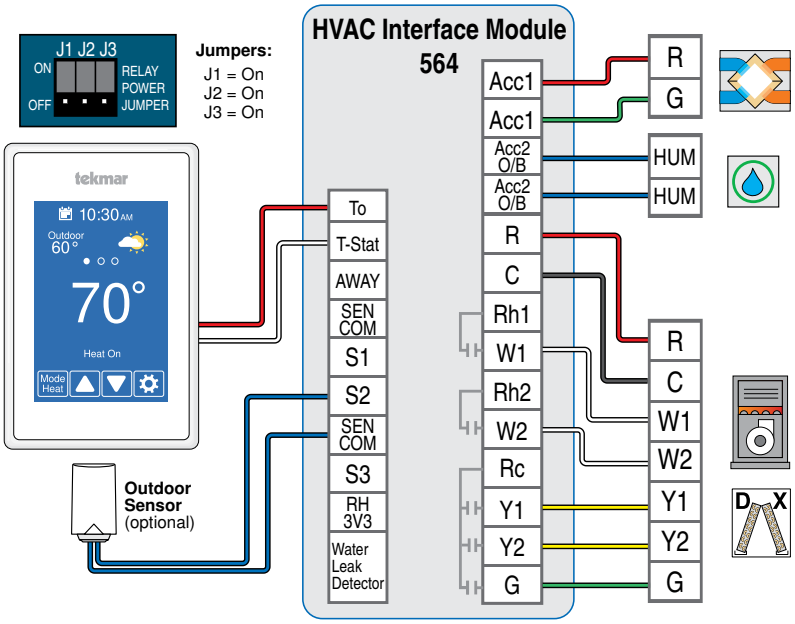
The Invita 564 operates a 2-stage furnace for heating and 2-stage air conditioner for cooling. A humidifier is used to maintain a minimum relative humidity level. An ERV/HRV is operated to provide ventilation to the building.



Electrical

Essential System Settings:

Heat Type = Conventional
Equipment = 2 Heat/2 Cool
Radiant Floor Heating = No
Accessory Relay 1 = Ventilation
Accessory Relay 2 = Humidifier
Fan Relay = With Y, W1 and W2
Sensor 2 = Outdoor (optional)



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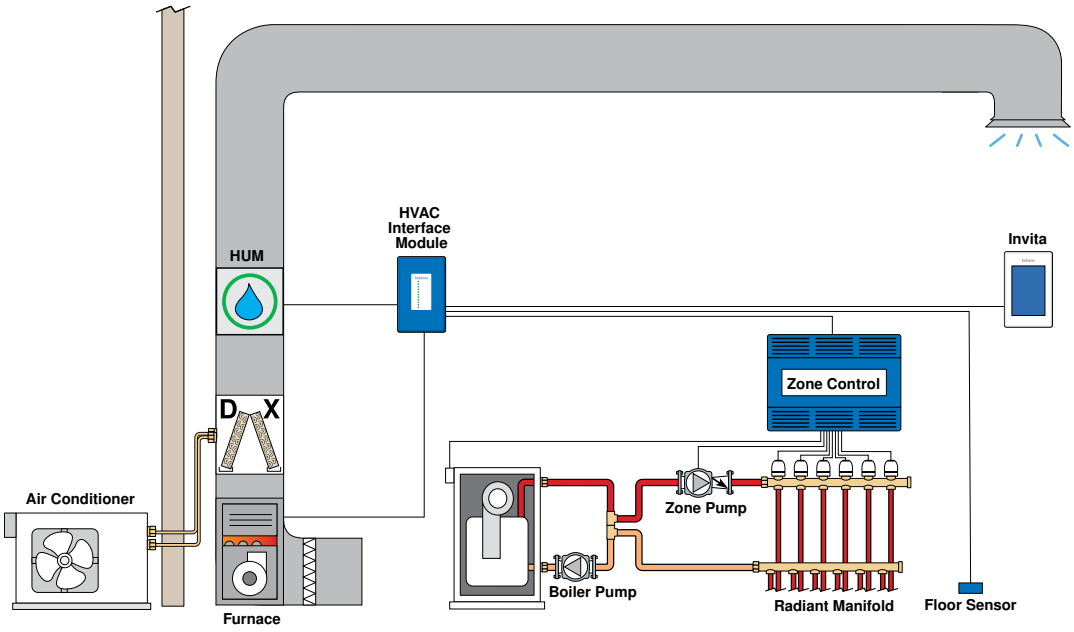
Radiant Floor, Furnace, AC with Humidifier

Application A564-3 *Mechanical*

Description

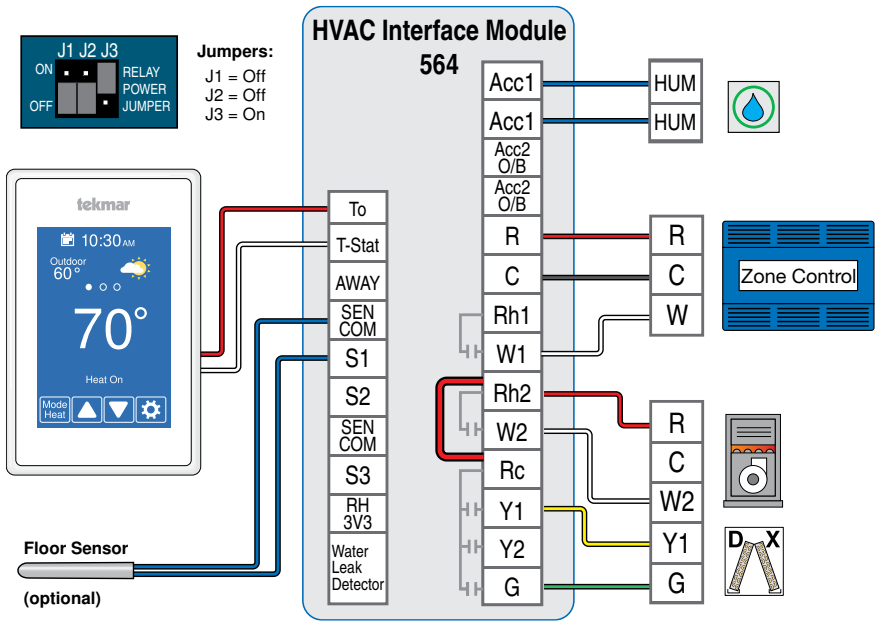
The Invita 564 operates a radiant floor as the first stage of heat and operates a furnace for second stage heating. It operates an air conditioner for cooling. A humidifier is operated to maintain a minimum relative humidity level.



Electrical

Essential System Settings:

Heat Type = Conventional
Equipment = 2 Heat/1 Cool
Radiant Floor Heating = Yes
Accessory Relay 1 = Humidifier
Accessory Relay 2 = Off
Fan Relay = With Y and W2
Sensor 1 = Floor (optional)



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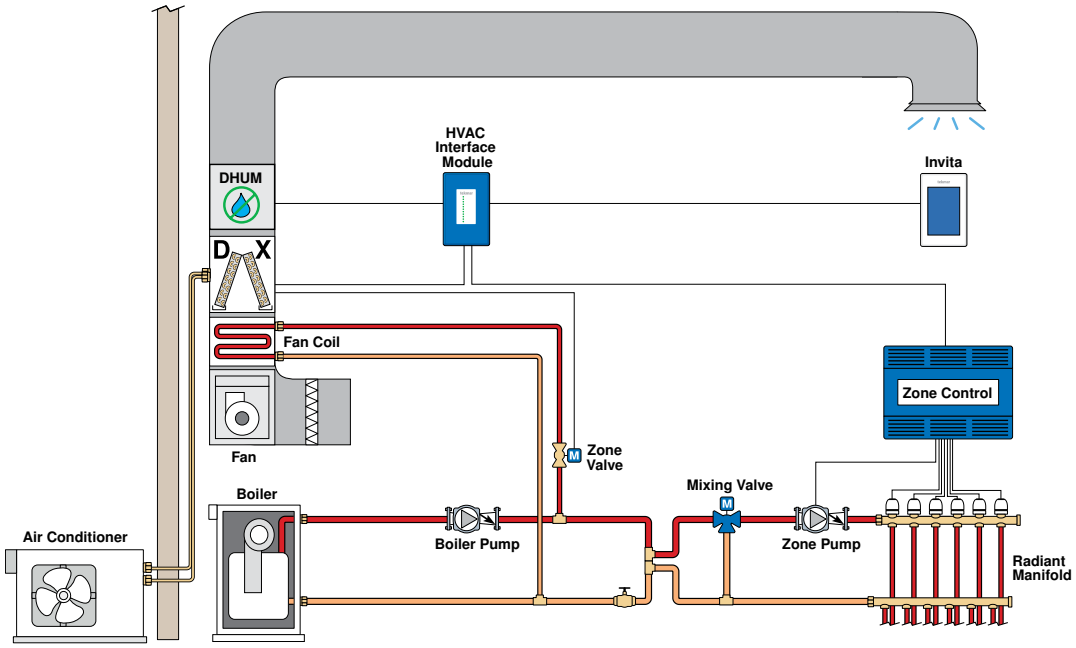
Radiant Floor, Fan Coil, 2-stage AC with Dehumidifier

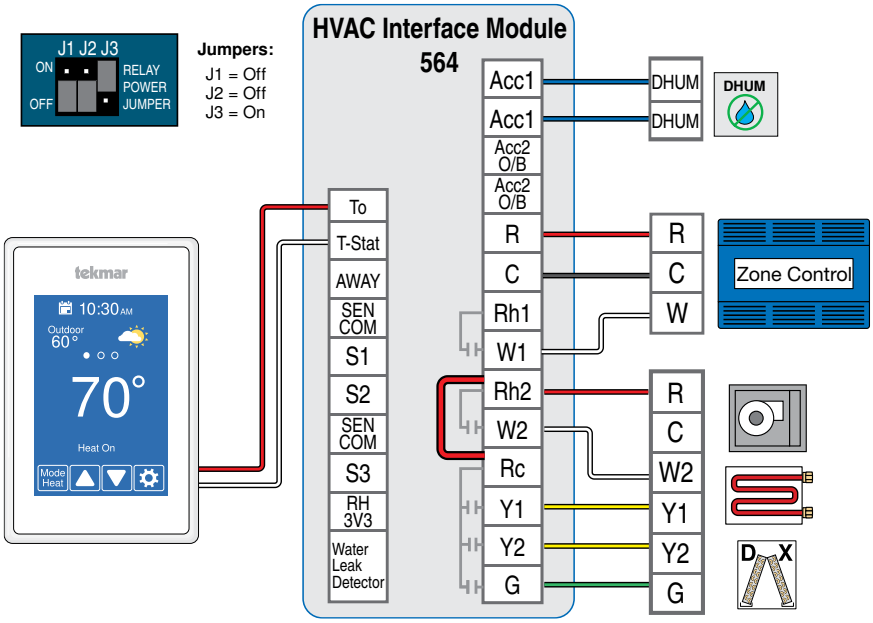
Application A564-4 *Mechanical*

Description

The Invita 564 operates a radiant floor as the first stage of heat and operates a hydronic fan coil for second stage heating. It operates a 2-stage air conditioner for cooling. A dehumidifier is operated to maintain below a maximum relative humidity level.



Electrical



Essential System Settings:

Heat Type = Conventional
Equipment = 2 Heat/2 Cool
Radiant Floor Heating = Yes
Accessory Relay 1 = Dehumidifier
Accessory Relay 2 = Off
Fan Relay = With Y and W2

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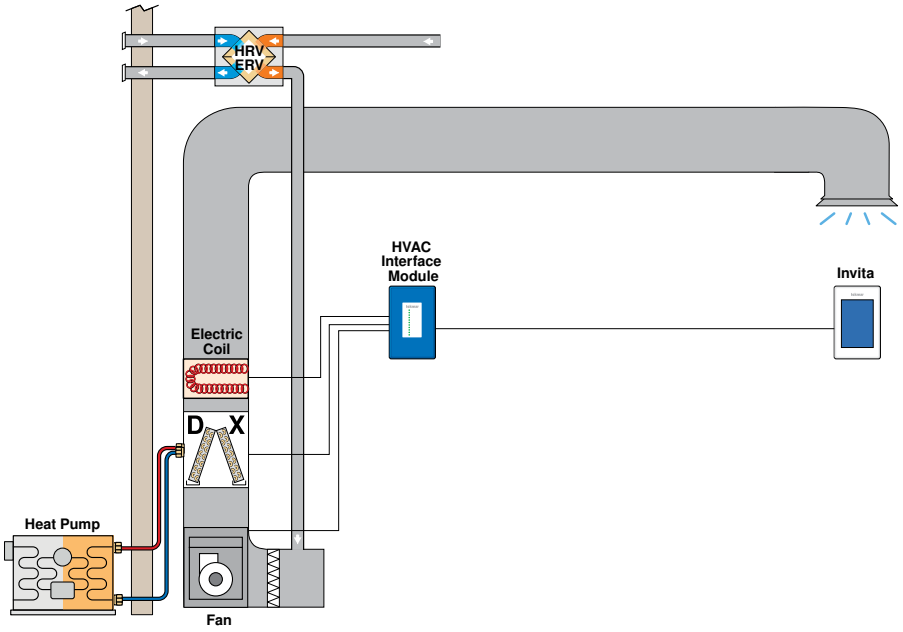
Heat Pump, Electric Coil Backup with ERV/HRV

Application A564-5 *Mechanical*

Description

The Invita 564 operates an air-to-air heat pump for heating & cooling. When the outdoor temperature falls below the balance point, the heat pump is disabled and the backup electric duct heater provides heating. An ERV/HRV is operated to provide ventilation to the building.



Electrical

Essential System Settings:

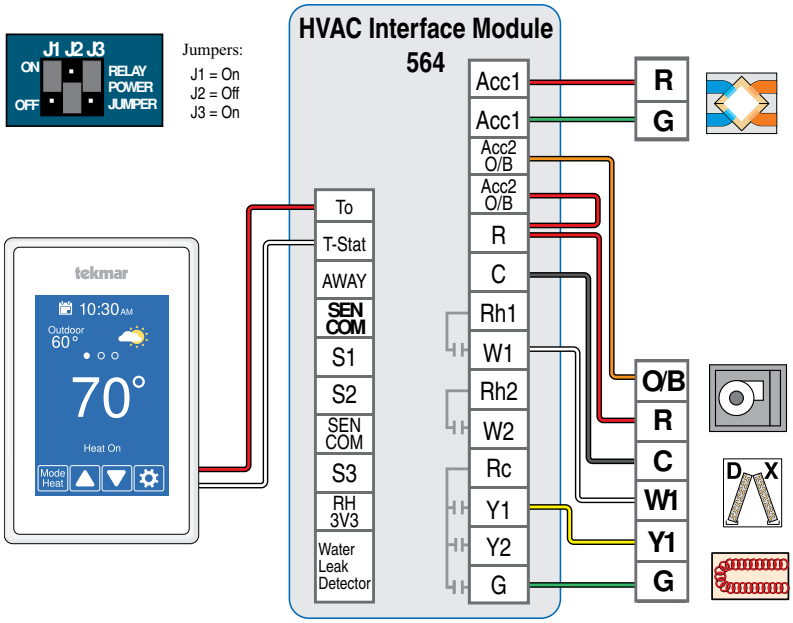
Heat Type = Heat Pump

Equipment = 1 Heat Pump/1 Aux

Radiant Floor Heating = No

Accessory Relay 1 = Ventilation

Fan Relay = With Y and W1



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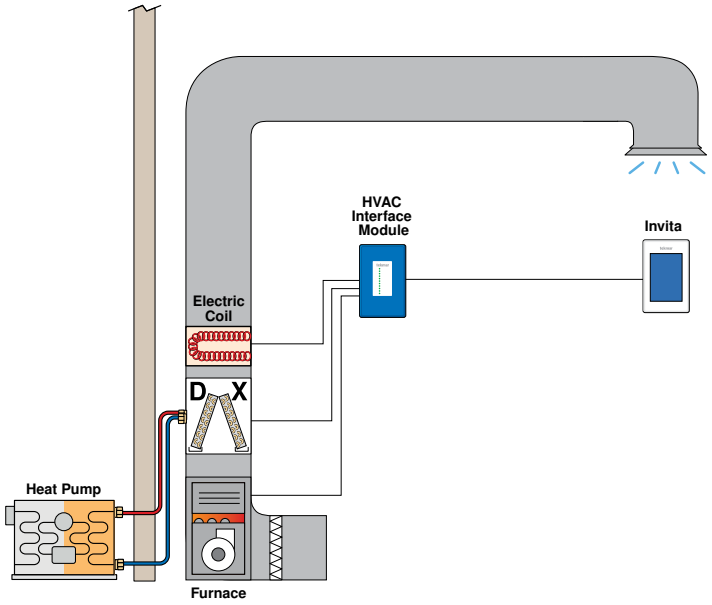
2-stage Heat Pump, Furnace, Electric Coil Backup

Application A564-6 *Mechanical*

Description

The Invita 564 operates a dual fuel system. The air-to-air heat pump is used for first and second stage heating & cooling. The heat pump is disabled when the outdoor temperature falls below the balance point, or when the furnace is brought on to provide backup heat. If the furnace is unable to keep up, the electric duct coil is used for an additional stage of heat. An ERV/HRV is operated to provide ventilation to the building.



Electrical

Essential System Settings:

Heat Type = Heat Pump

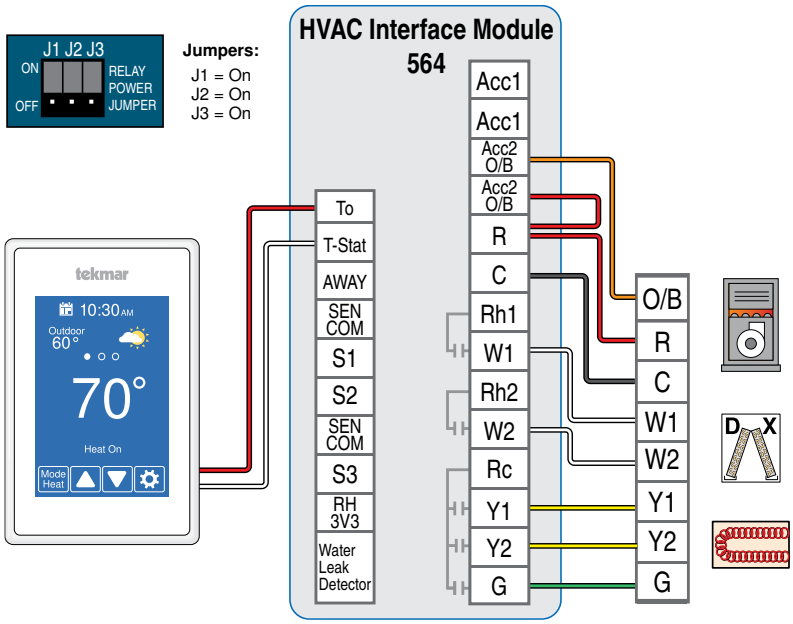
Equipment = 2 Heat Pump/2 Aux

Radiant Floor Heating = No

Dual Fuel = On

Accessory Relay 1 = Off

Fan Relay = With Y, W1 and W2



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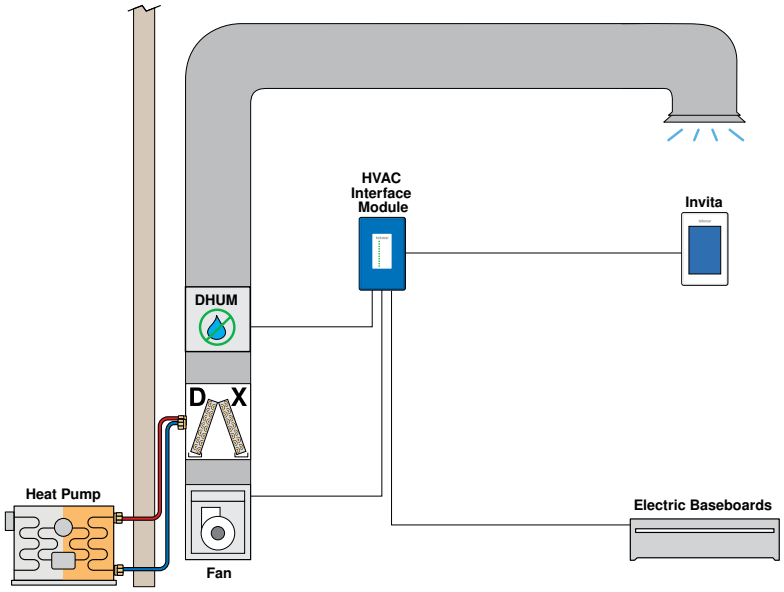
Heat Pump, Baseboards with Dehumidifier

Application A564-7 *Mechanical*

Description

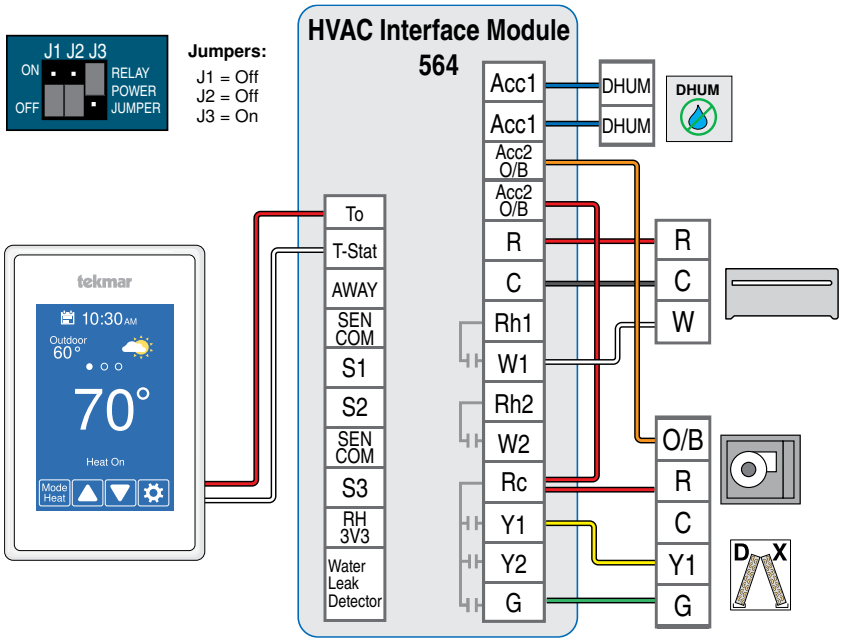
The Invita 564 operates an air-to-air heat pump for heating & cooling. The heat pump is disabled when the outdoor temperature falls below the balance point. Electric baseboard heating is used for second stage heating. A dehumidifier is operated to maintain below a maximum relative humidity level.



Electrical

Essential System Settings:

Heat Type = Heat Pump
Equipment = 1 Heat Pump/1 Aux
Radiant Floor Heating = No
Accessory Relay 1 = Dehumidifier
Fan Relay = With Y



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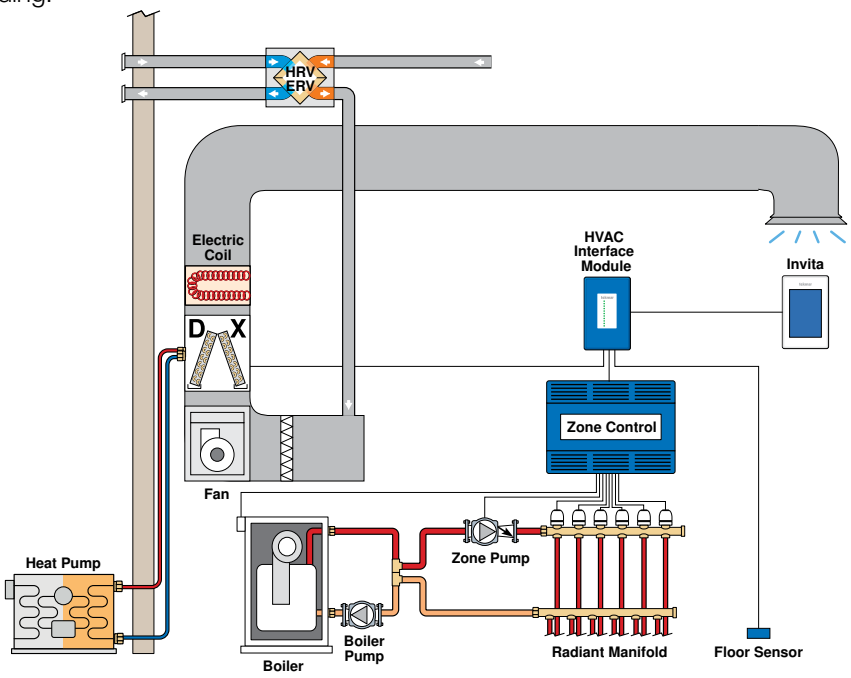
Radiant Floor, 2-stage Heat Pump, Electric Coil Backup with ERV/HRV

Application A564-8 *Mechanical*

Description

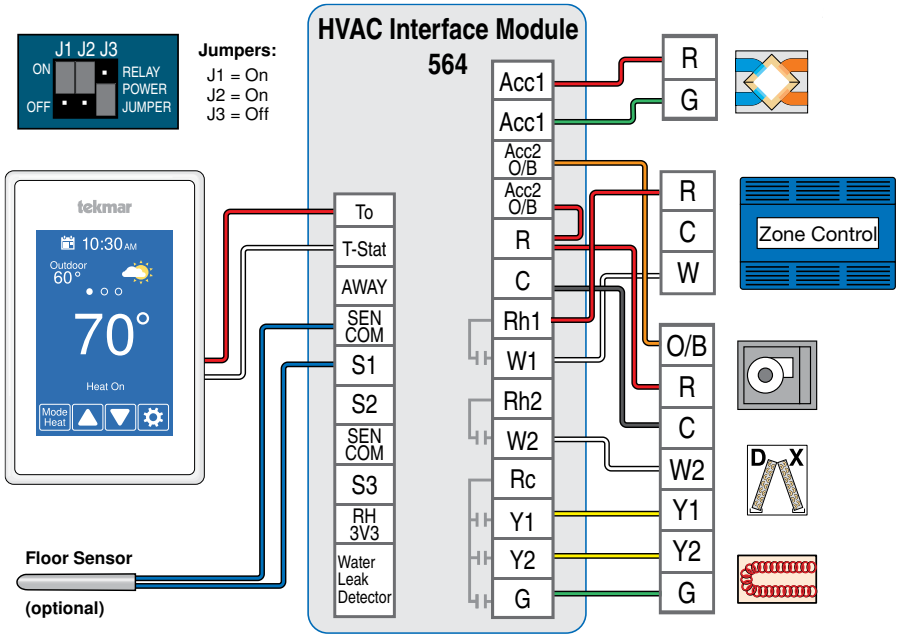
The Invita 564 operates a radiant floor as the first stage of heat and operates a 2-stage air-to-air heat pump for second and third stage heating & 2-stage cooling. The heat pump is disabled when the outdoor temperature falls below the balance point. An electric duct heater is used as an additional stage of heat. An ERV/HRV is operated to provide ventilation to the building.



Electrical

Essential System Settings:

Heat Type = Heat Pump
Equipment = 2 Heat Pump/2 Aux
Radiant Floor Heating = Yes
Accessory Relay 1 = Ventilation
Fan Relay = With Y and W2
Sensor 1 = Floor (optional)



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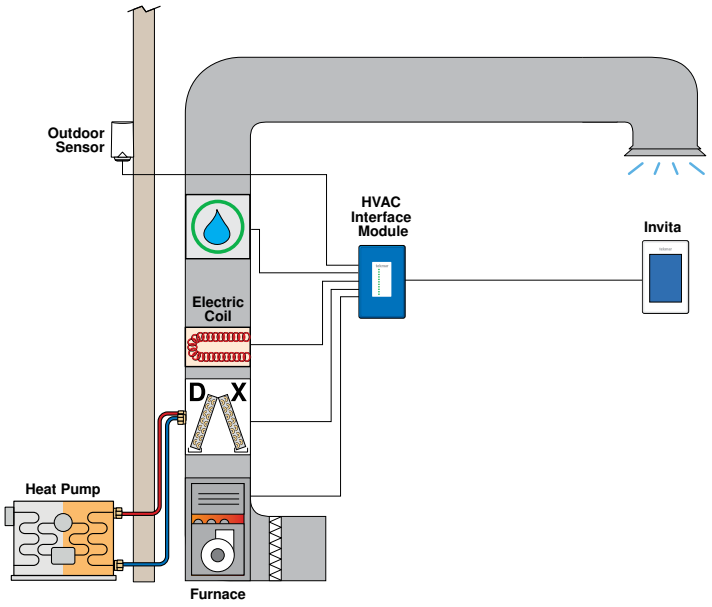
Heat Pump, Furnace, Electric Coil Backup with Humidifier

Application A564-9 *Mechanical*

Description

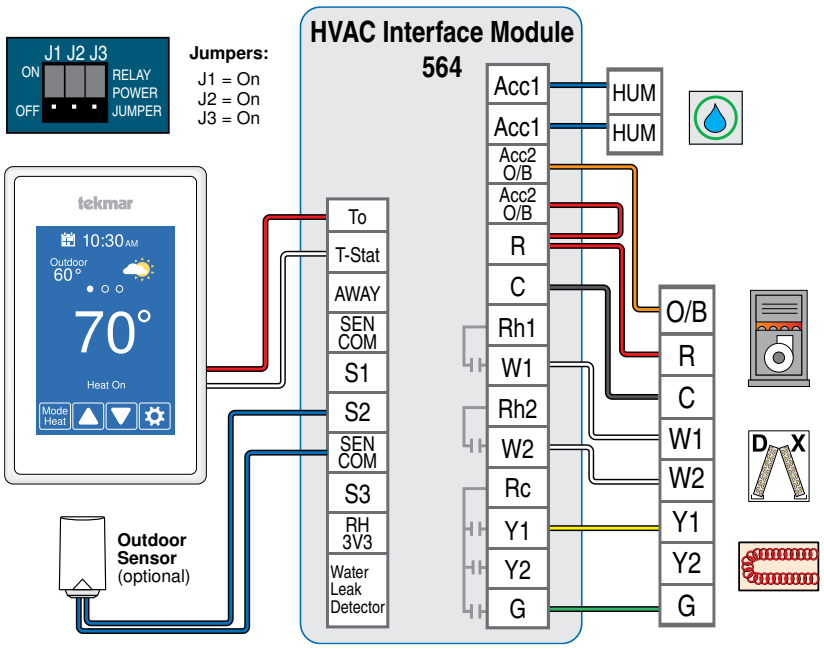
The Invita 564 operates a dual fuel system. The air-to-air heat pump is used for first stage heating & cooling. The heat pump is disabled when the outdoor temperature falls below the balance point, or when the furnace is brought on to provide backup heat. If the furnace is unable to keep up, the electric duct heater is used for an additional stage of heat. A humidifier is operated to maintain a minimum relative humidity level.



Electrical

Essential System Settings:

Heat Type = Heat Pump
Equipment = 2 Heat Pump/2 Aux
Radiant Floor Heating = No
Dual Fuel = On
Accessory Relay 1 = Humidifier
Fan Relay = With Y, W1 and W2
Sensor 2 = Outdoor (optional)



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Notes

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All specifications are subject to change without notice

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