

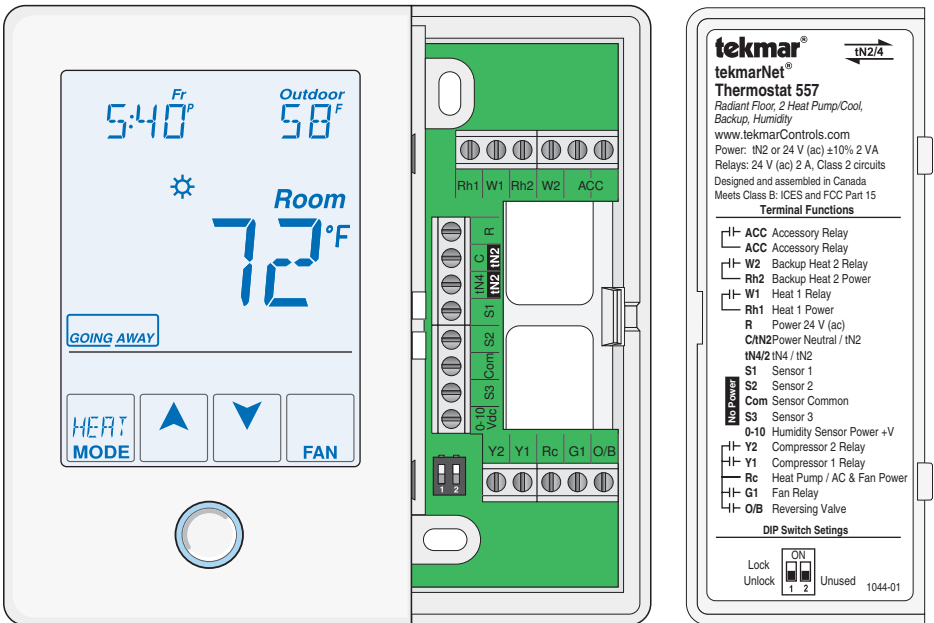
Zoning

557_A

08/12

Replaces: New

Application Brochure



tekmar[®]

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Thermostat 557

Radiant Floor, 2 Heat Pump/Cool,
Backup, Humidity

www.tekmarControls.com

Power: IN2 or 24 V (ac) ±10% 2 VA

Relays: 24 V (ac) 2 A, Class 2 circuits

Designed and assembled in Canada

Meets Class B: ICES and FCC Part 15

Terminal Functions

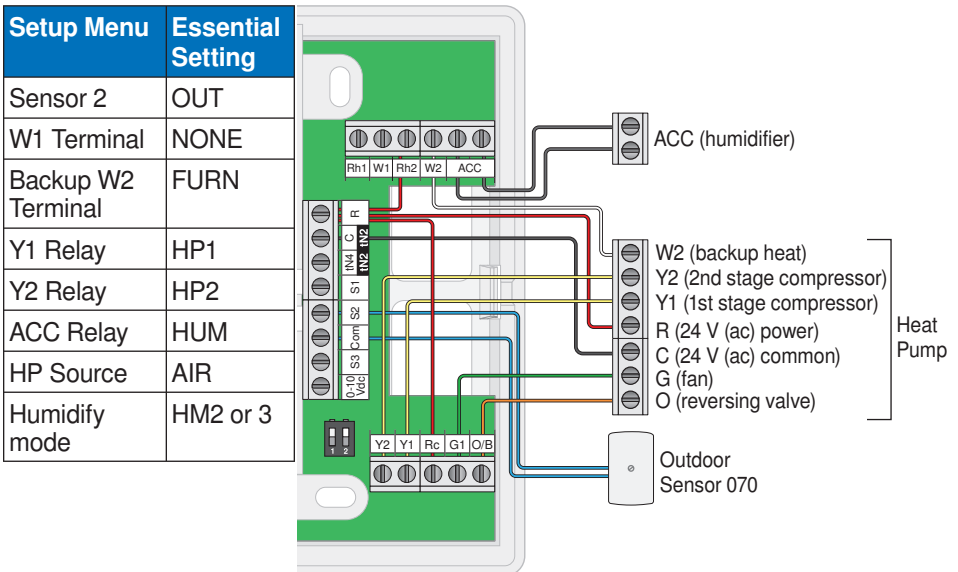
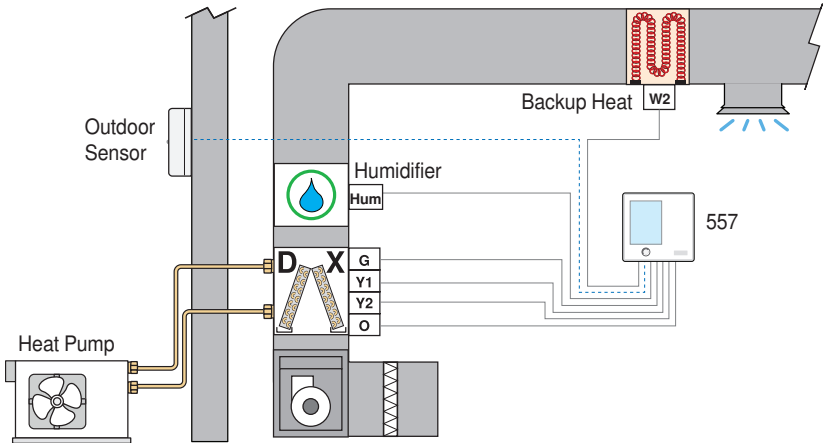
- ACC Accessory Relay
- ACC Accessory Relay
- W2 Backup Heat 2 Relay
- Rh2 Backup Heat 2 Power
- W1 Heat 1 Relay
- Rh1 Heat 1 Power
- R Power 24 V (ac)
- CN2 Power Neutral / IN2
- IN4/ IN4 / IN2
- S1 Sensor 1
- S2 Sensor 2
- Com Sensor Common
- S3 Sensor 3
- 0-10 Humidity Sensor Power +V
- Y2 Compressor 2 Relay
- Y1 Compressor 1 Relay
- Rc Heat Pump / AC & Fan Power
- G1 Fan Relay
- O/B Reversing Valve

DIP Switch Settings

- Lock ON
- Unlock 1 2 Unused 1044-01

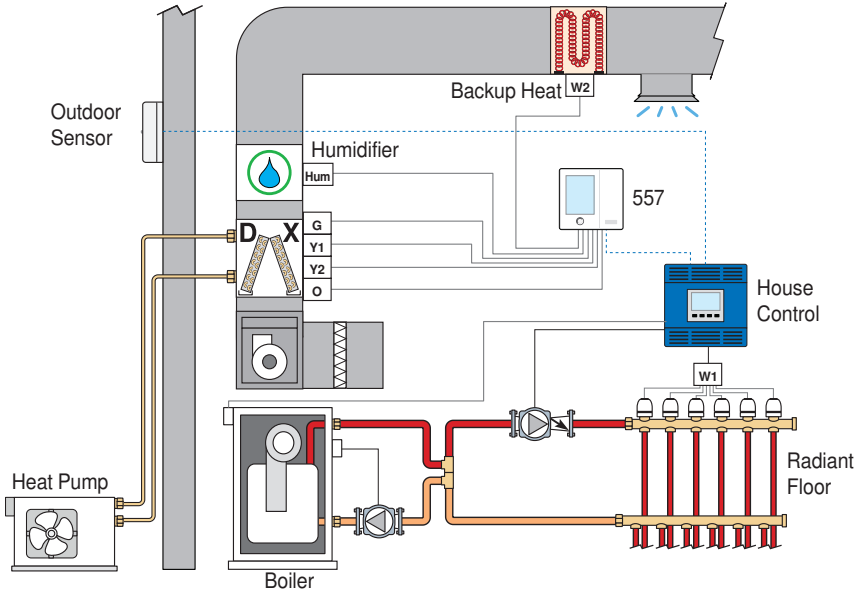
Description

The 557 operates a two-stage air-to-air heat pump for heating and cooling. When the outdoor temperature falls below the balance point, the heat pump is disabled and the backup heat source provides heating. A humidifier is operated to maintain a minimum relative humidity level.

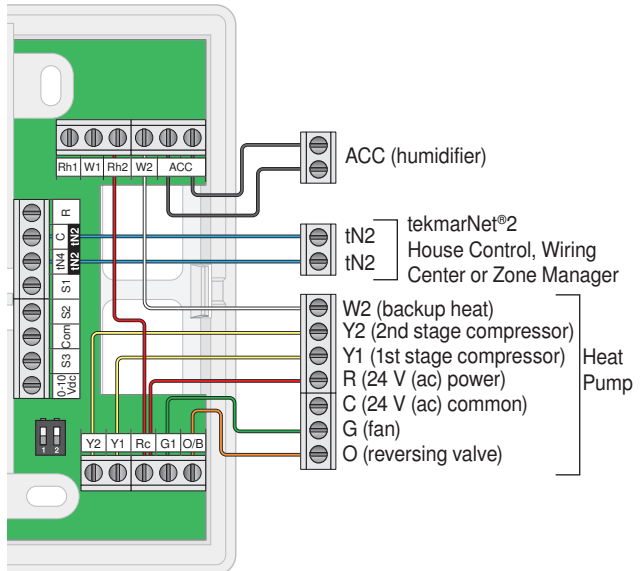


Description

The 557 operates a radiant floor as the first stage of heat, and operates a two-stage air-to-air heat pump for second and third stage heating and first and second stage cooling. When the outdoor temperature falls below the balance point, the heat pump is disabled and the backup heat source provides heating. A humidifier is operated to maintain a minimum relative humidity level.

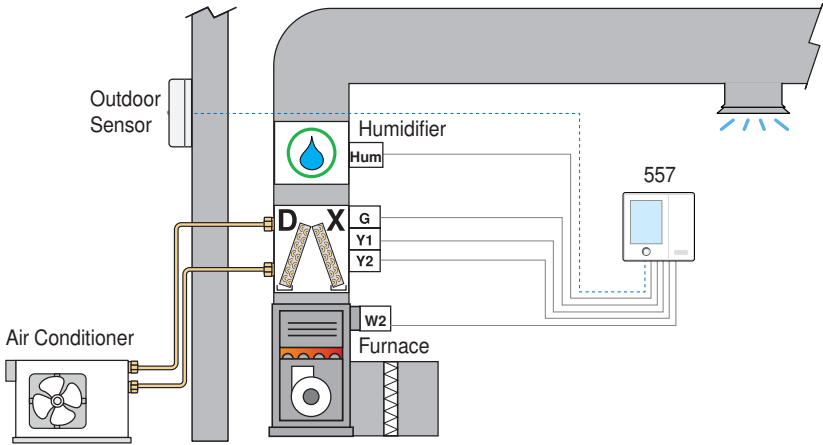


Setup Menu	Essential Setting
W1 Terminal	HRF1 or 2
Backup W2 Terminal	FURN
Y1 Relay	HP1
Y2 Relay	HP2
ACC Relay	HUM
HP Source	AIR
Humidify mode	HM2 or 3

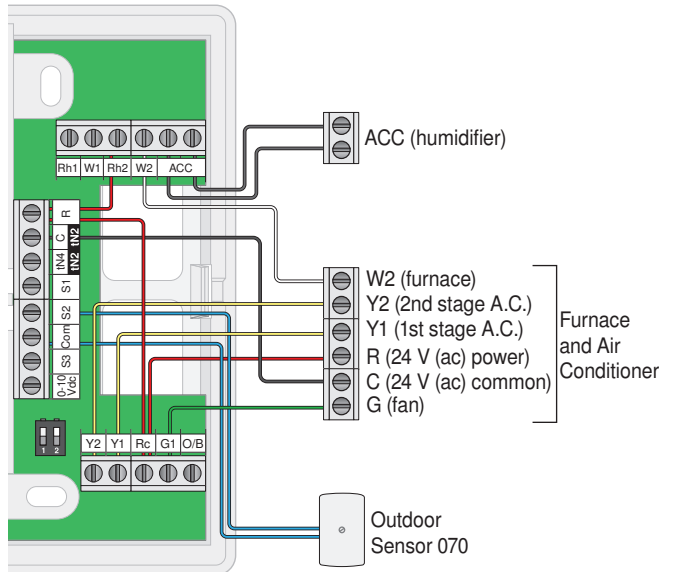


Description

The 557 operates a furnace for heating and an air conditioner for cooling. A humidifier is operated to maintain a minimum relative humidity level.

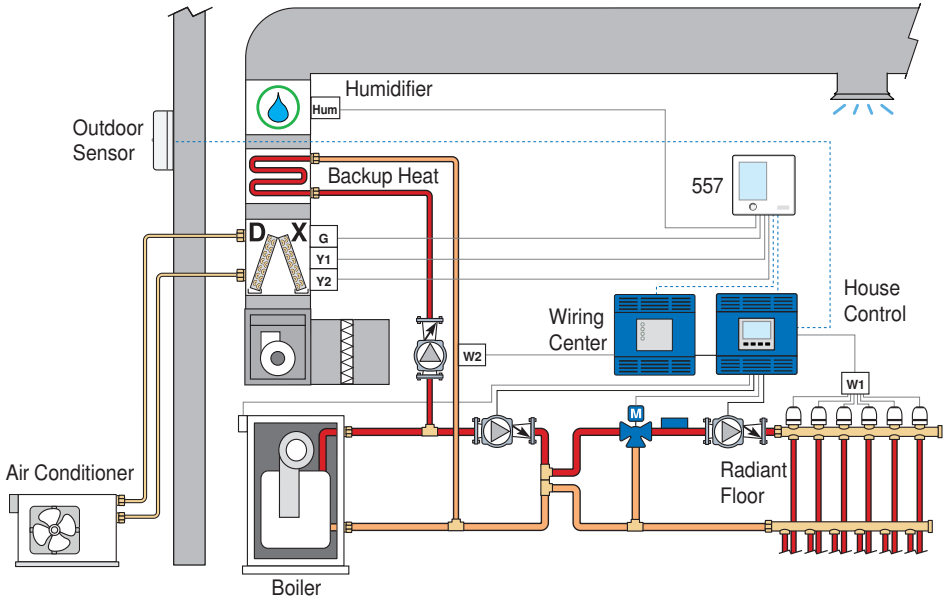


Setup Menu	Essential Setting
Sensor 2	OUT
W1 Terminal	NONE
Backup W2 Terminal	FURN
Y1 Relay	AC1
Y2 Relay	AC2
ACC Relay	HUM
Humidify mode	HM2 or 3

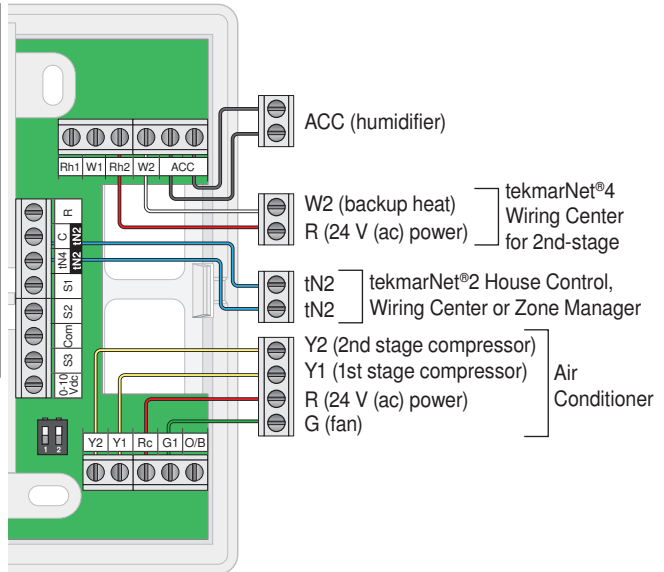


Description

The 557 operates a radiant floor as the first stage of heat, and operates a hydronic fan coil for second stage heating. The 557 operates an air conditioner for up to two stages of cooling. A humidifier is operated to maintain a minimum relative humidity level.

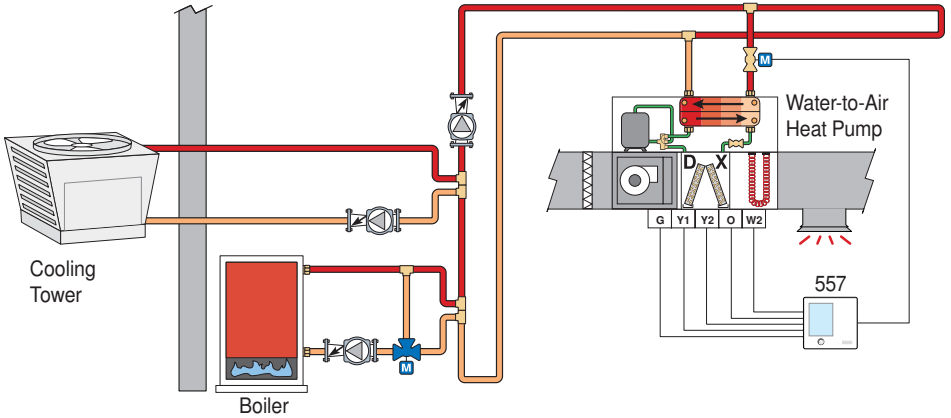


Setup Menu	Essential Setting
W1 Terminal	HRF1 or 2
Backup W2 Terminal	COIL
Y1 Relay	AC1
Y2 Relay	AC2
ACC Relay	HUM
Humidify mode	HM2 or 3

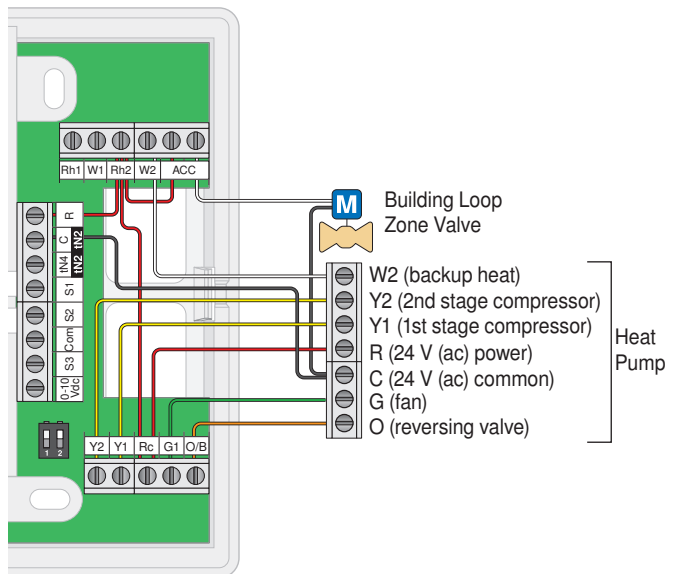


Description

The 557 operates a water-to-air heat pump to provide heating and cooling as required. The zone valve is activated to allow the building water-loop to circulate through the heat pump when in operation. Backup electric resistance is available for emergency backup heat operation.

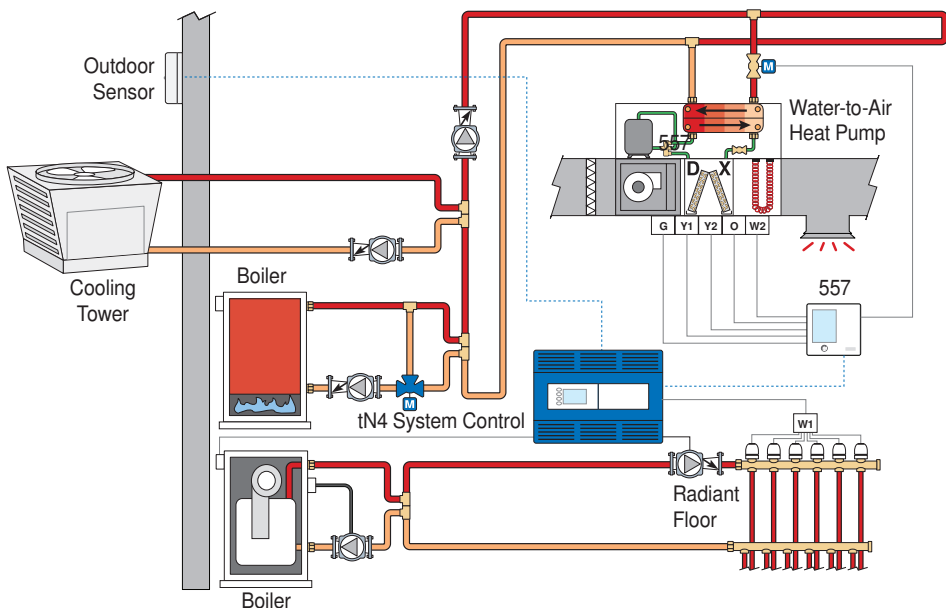


Setup Menu	Essential Setting
W1 Terminal	NONE
Backup W2 Terminal	FURN
Y1 Relay	HP1
Y2 Relay	HP2
ACC Relay	VALV
HP Source	LOOP

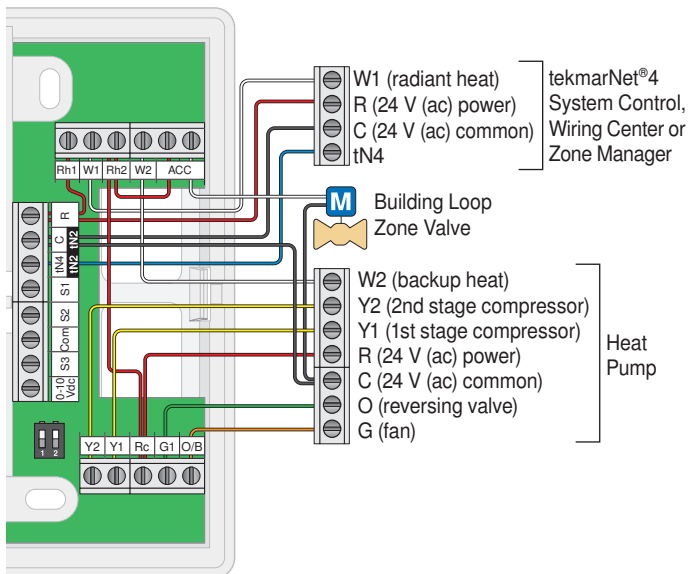


Description

The 557 operates a water-to-air heat pump to provide heating and cooling as required. The zone valve is activated to allow the building water-loop to circulate through the heat pump when in operation. Radiant floor heating is controlled through the thermostat to provide a more comfortable space. Electric resistance is available for emergency backup heat operation.

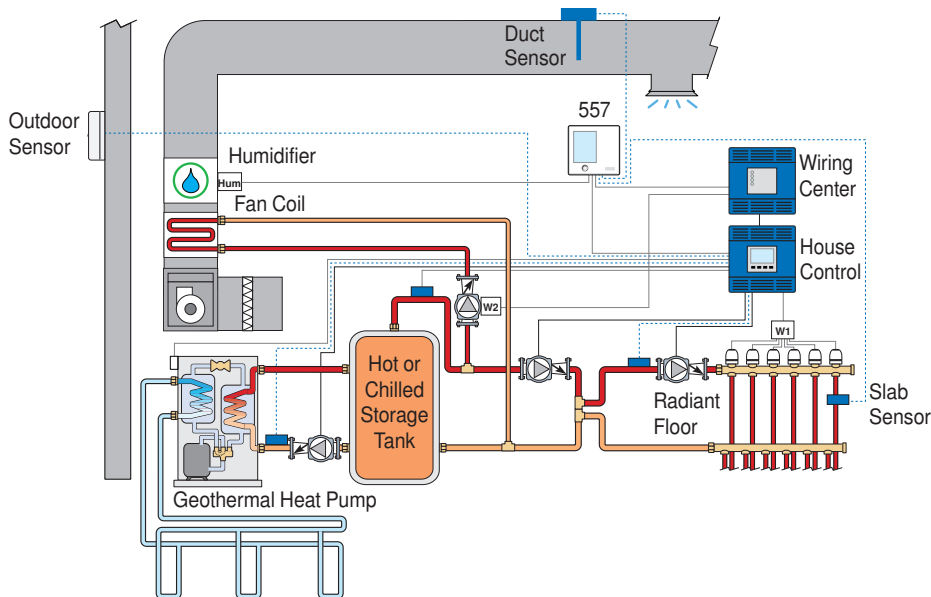


Setup Menu	Essential Setting
W1 Terminal	HRF1 or 2
Backup W2 Terminal	FURN
Y1 Relay	HP1
Y2 Relay	HP2
ACC Relay	VALV
HP Source	LOOP

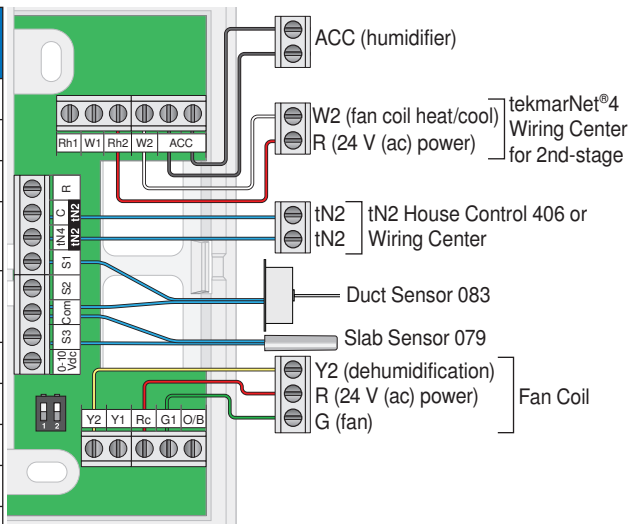


Description

The 557 is connected to a House Control 406 which provides hot or chilled water from a storage tank. The 557 operates a radiant floor as the first stage of heat, and operates a hydronic fan coil for second stage heating and first stage cooling. A humidifier and dehumidifier are operated to maintain minimum and maximum relative humidity levels.



Setup Menu	Essential Setting
Sensor 1	DUCT
Sensor 3	FLOR
W1 Terminal	HRF1 or 2
Backup W2 Terminal	COIL
Backup W2 Source	TNK
Y1 Relay	W2
Y2 Relay	DHUM
ACC Relay	HUM
Humidify mode	HM2 or 3
Dehumidify mode	DHM2



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