Application Guide

Honeywell



TB7600, TB7300, TB7200 Series Communicating Thermostats



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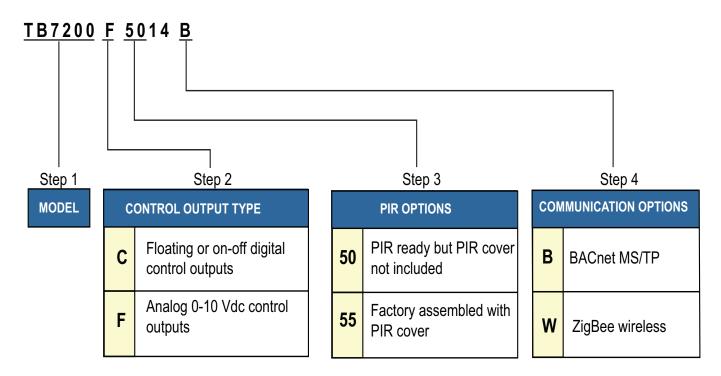
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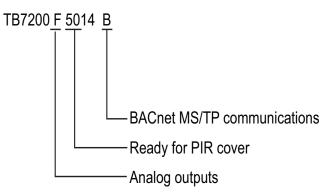
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TB7200 SERIES ZONING THERMOSTAT SELECTION





Example

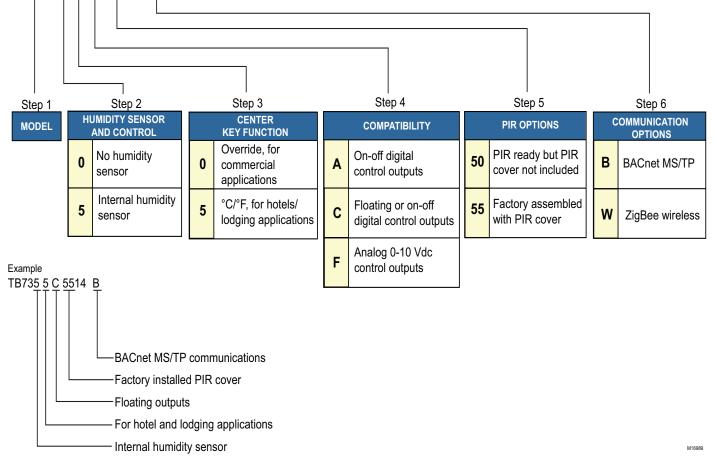


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TB7300 SERIES FAN COIL UNIT THERMOSTAT SELECTION

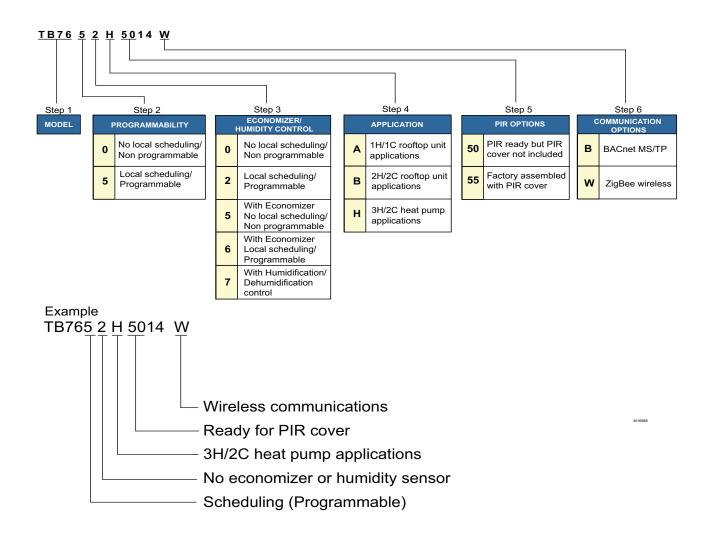


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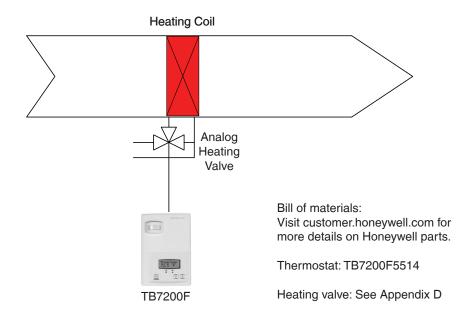


TB7600 SERIES RTU AND HEATPUMP THERMOSTAT SELECTION





TB7200F5514 : HEATING ONLY: ANALOG VALVE ACTUATOR



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	1 = Heating Only
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, None
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied Mode:

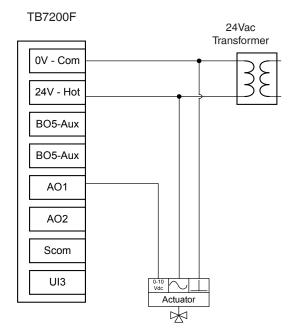
During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating:

The heating valve will modulate from closed to open according to the demand.



Options

BACnet and Wireless models are available. See appendix B for more details.

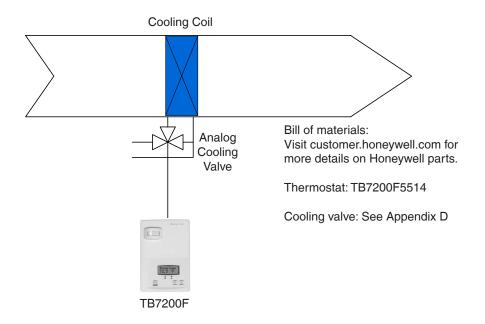
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

Auxiliary electric reheat can be added if required by the application.

TB7200F5514: COOLING ONLY: ANALOG VALVE ACTUATOR



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	0 = Cooling Only
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

TB7200F

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupiedby heating and cooling setpoints are used.

Unoccupied Mode:

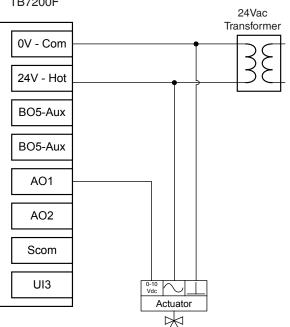
During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling:

The cooling valve will modulate from closed to open according to the demand.



Options

BACnet and Wireless models are available. See appendix B for more details.

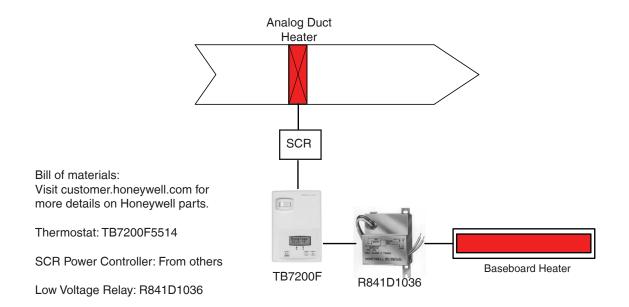
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

Auxiliary electric reheat can be added if required by the application.

TB7200F5514: HEATING WITH REHEAT: ANALOG DUCT HEATER AND ELECTRIC BASEBOARD



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	3 = Heating with reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0 = 15 minutes
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied Mode:

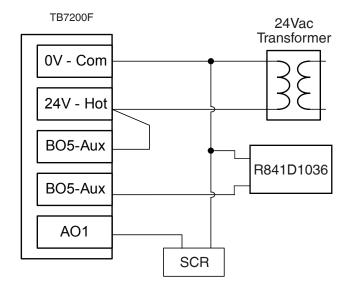
During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating:

The proportional device will act as a first step and modulate from 0 to 100% capacity. The perimeter heater will operate as a second step.



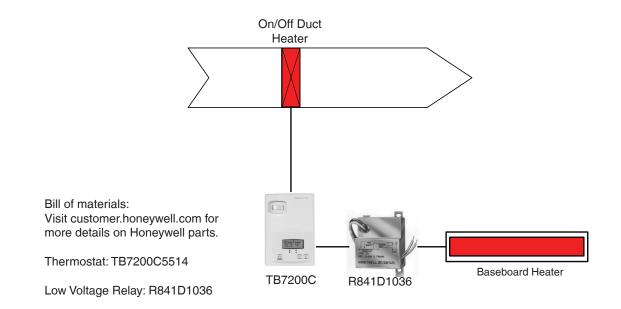
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

TB7200C5514: HEATING WITH REHEAT: ONE STAGE DUCT HEATER, ELECTRIC BASEBOARD



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
CntrlTyp	ON/OFF
SeqOpera	3 = Heating with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
FL time	1.5 minutes is factory set, range is 0.5 to 9 minutes
cph	3, 4, 5, 6, 7, or 8 CPH
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied Mode:

During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

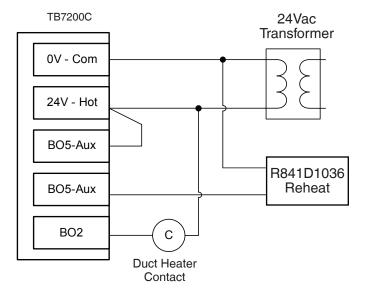
On a call for heating:

The proportional device will act as a first step and modulate from 0 to 100% capacity. The perimeter heater will operate as a second step.

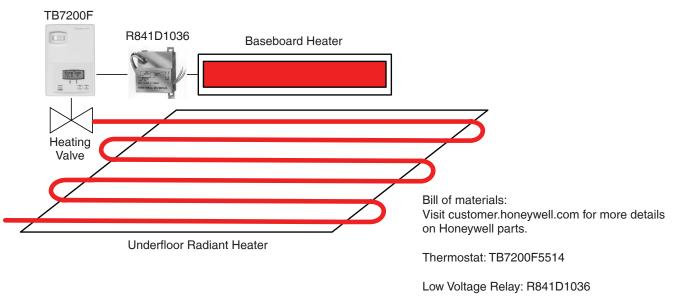
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.



TB7200F5514: HEATING WITH REHEAT: ANALOG FLOOR RADIANT HEATING AND ELECTRIC BASEBOARD



Radiant floor heating valve: See Appendix D

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	3 = Heating with reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

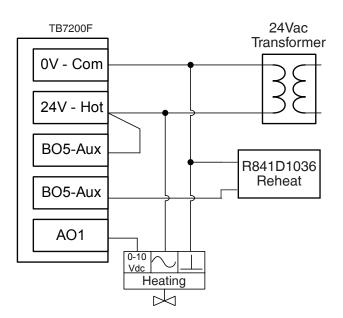
Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.



Unoccupied Mode:

During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating:

The proportional device will act as a first step and modulate from 0 to 100% capacity. The perimeter heater will operate as a second step.

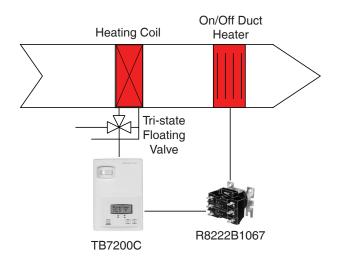
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

TB7200C5514: HEATING WITH REHEAT: TRI-STATE FLOATING VALVE, ON/OFF DUCT HEATER.



Bill of materials: Visit customer.honeywell.com for more details on Honeywell parts.

Thermostat: TB7200C5514

Low Voltage Relay: R8222B1067

Heating valve: See Appendix D

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
CntrlTyp	Floating
SeqOpera	3 = Heating with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
FL time	1.5 minutes is factory set, range is 0.5 to 9 minutes
cph	3, 4, 5, 6, 7, or 8 CPH
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

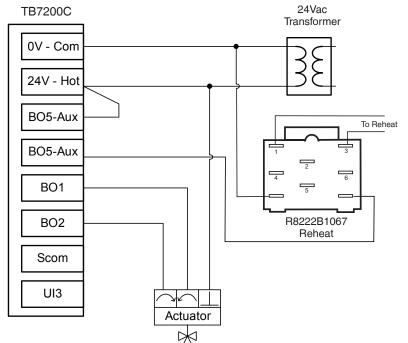
Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.



Unoccupied Mode:

During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating:

The proportional device will act as a first step and modulate from 0 to 100% capacity. The duct heater will operate as a second step.

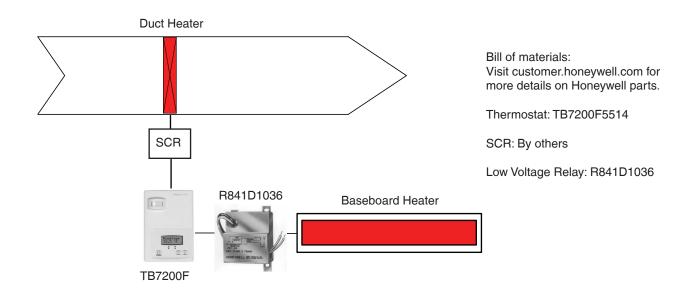
Note: Actuator Common wires to 24V - Hot terminal.

Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

TB7200F5514: HEATING WITH REHEAT: ANALOG DUCT HEATER, ELECTRIC BASEBOARD



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	3 = Heating with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
RA/DA	RA = reverse acting, DA = direct acting
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied Mode:

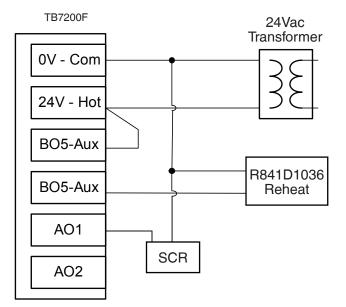
During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating:

The proportional device will act as a first step and modulate from 0 to 100% capacity. The perimeter heater will operate as a second step.

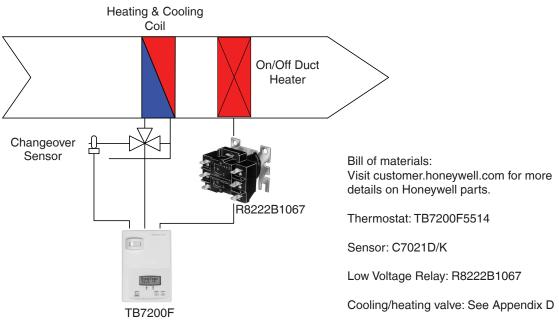


Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

TB7200F5514: ANALOG HEATING & COOLING WITH CHANGEOVER SENSOR & REHEAT



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	2 = Cooling with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied Mode:

During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room. During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied Mode:

During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Occupied Override Mode:

The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: *If the supply water temperature is less than 75F, the valve will modulate from closed to open according to demand. If the water supply temperature is greater than 77F, the valve will remain closed.*

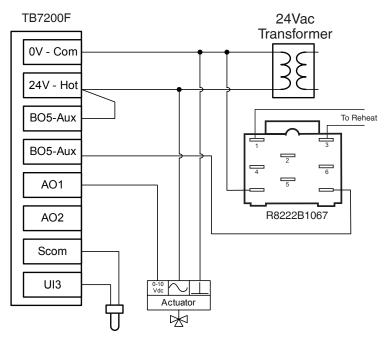
On a call for heating: *If the supply water temperature is higher than 77F, the valve will modulate from closed to open according to demand. If the water supply temperature is less than 75F, the valve will remain closed. The duct heater will operate as a second step.*

Options

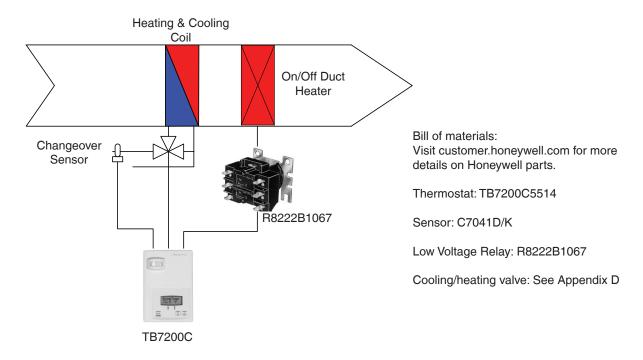
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.



TB7200C5514: HEATING & COOLING, CHANGEOVER SENSOR & REHEAT: TRI-STATE FLOATING VALVE, ON & OFF DUCT HEATER, WATER SENSOR FOR CHANGEOVER



To enter configuration menu press and hold the override key for 8 seconds. For full explanation of parameters refer to the TB7200 Series Installation Instructions (Form No. 62-2019).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
CntrlTyp	Floating
SeqOpera	2 = Cooling with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
FL time	1.5 minutes is factory set, range is 0.5 to 9 minutes
cph	N/A
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied

modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

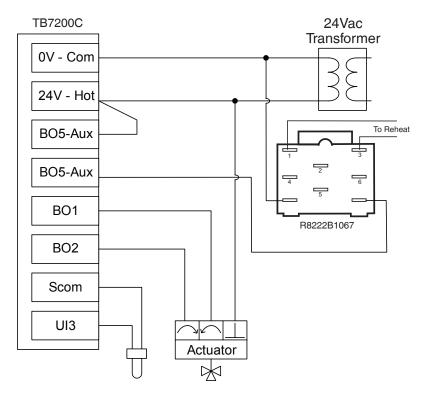
- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: If the supply water temperature is less than 75F, the valve will modulate from closed to open according to demand. If the water supply temperature is greater than 77F, the valve will remain closed.

On a call for heating: If the supply water temperature is higher than 77F, the valve will modulate from closed to open according to demand. If the water supply temperature is less than 75F, the valve will remain closed. The duct heater will operate as a second step.



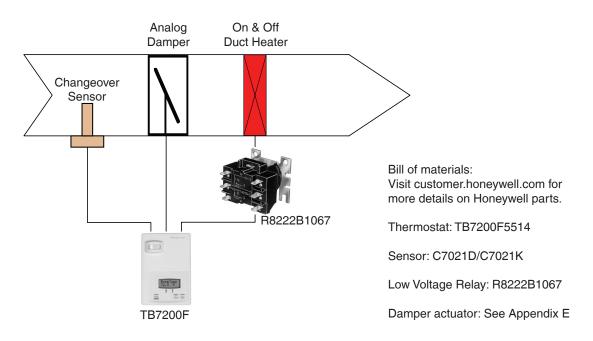
Note: Actuator Common wires to 24V - Hot terminal.

Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

TB7200F5514: HEATING & COOLING, CHANGEOVER SENSOR & REHEAT: ANALOG 0-10VDC AIR DAMPER ACTUATOR, ON & OFF DUCT HEATER AND SUPPLY AIR SENSOR FOR CHANGEOVER



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
SeqOpera	2 = Cooling with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

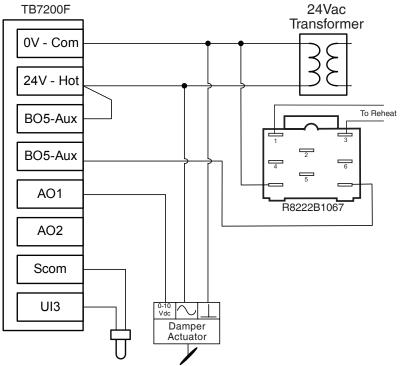
- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: If the supply water temperature is higher than 77F, the valve will modulate from closed to open according to demand. If the air supply temperature is less than 75F, the valve will remain closed. The duct heater will operate as a second step.

On a call for cooling: If the supply air temperature is less than 75F, the damper will modulate from closed to open according to demand. If the water supply temperature is greater than 77F, the damper will remain closed.



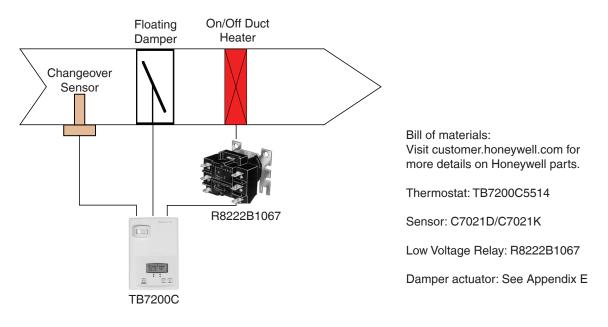
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

TB7200C5514: HEATING,COOLING WITH CHANGEOVER SENSOR & REHEAT: FLOATING AIR DAMPER ACTUATOR, ON & OFF DUCT HEATER AND SUPPLY AIR SENSOR FOR CHANGEOVER



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	On or Off if scrolling of thermostat status is desired
C or F	°F or °C default value at thermostat power up
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	2.0 = access all sequences of operation from 0 to 3
CntrlTyp	Floating
SeqOpera	2 = Cooling with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
FL time	1.5 minutes is factory set, range is 0.5 to 9 minutes
cph	N/A
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes. When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

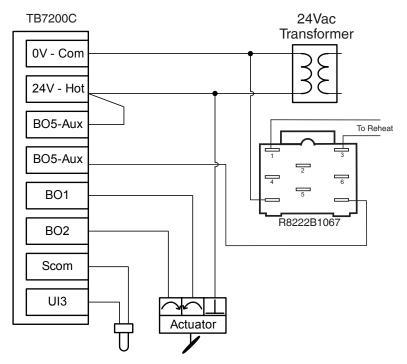
- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: If the supply air temperature is less than 75F, the damper will modulate from closed to open according to demand. If the air supply temperature is greater than 77F, the damper will remain closed.

On a call for heating: If the supply air temperature is greater than 77F, the damper will modulate from closed to open according to demand. If the air supply temperature is less than 75F, the damper will remain closed. The duct heater will operate as a second step.



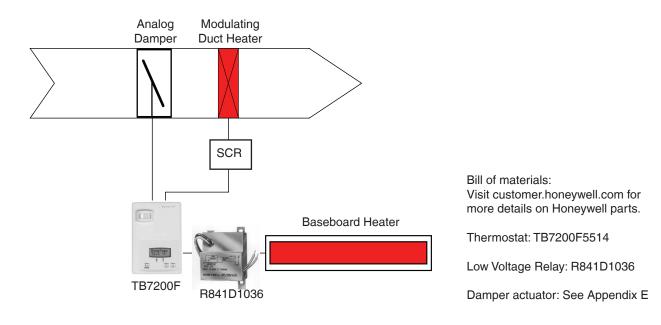
Note: Actuator Common wires to 24V - Hot terminal.

Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

TB7200F5514: HEATING AND COOLING WITH REHEAT: ANALOG 0-10VDC AIR DAMPER ACTUATOR, ANALOG DUCT HEATER AND ELECTRIC BASEBOARD



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	On or Off if scrolling of thermostat status is desired
Lockout	0 = occupied setpoints and unoccupied override access
Out1Conf	4.0 = access all sequences of operation from 0 to 3
SeqOpera	5 = Cooling and heating with Reheat
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	62 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	80 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
heat max	90 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
cool min	54 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permnent: (permanent) or Temporar: (temporary) setpoints
TOccTime	2 hours is factory set, range is 0 to 24 hours
deadband	2 °F is factory set, range is: 2 to 5 °F
cal RS	Factory set
aux cont	0, used for reheat
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

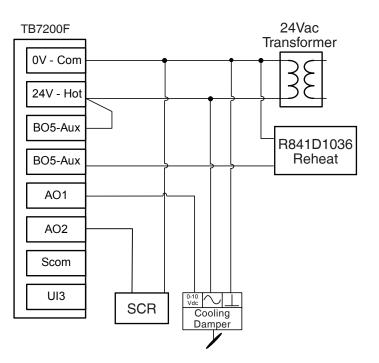
- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The damper will modulate from closed to open according to demand.

On a call for heating: The damper will remain closed. The proportional heater will act as a first step and modulate from 0 to 100% capacity. The perimeter heater will operate as a second step.



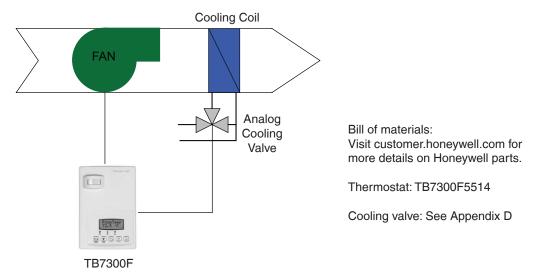
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

TB7300F5514: COOLING ONLY: 2-PIPE FANCOIL UNIT WITH SINGLE SPEED FAN AND AN ANALOG COOLING VALVE



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	2.0
SeqOpera	0 = Cooling Only
Fan Menu	4
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 $^{\circ}$ F (12 $^{\circ}$ C). Range = 54 to 100 $^{\circ}$ F (12 to 37.5 $^{\circ}$ C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
cph	N/A
RA/DA	As per Valve
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

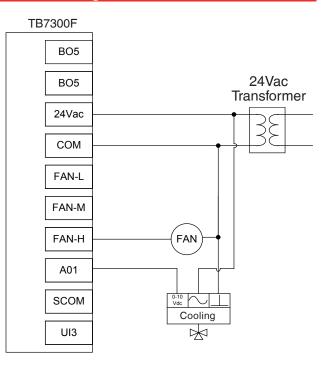
- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The cooling valve will modulate from closed to open according to the demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.



Options

BACnet and Wireless models are available. See appendix B for more details.

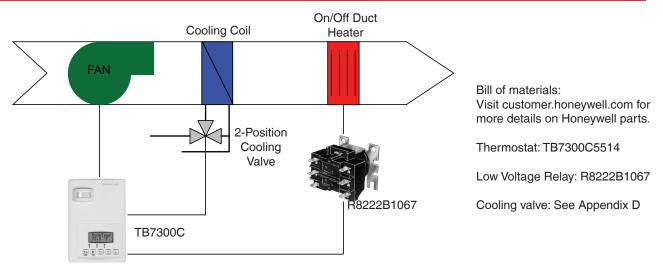
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

Other fan mode configurations can be set for either single speed, dual speed or 3 speed fan mode operation.

TB7300C5514: COOLING WITH REHEAT: 2-PIPE FANCOIL UNIT WITH 3-SPEED FAN, 2-POSITION VALVE AND ELECTRIC REHEAT



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	2.0
CntrlTyp	On/Off
SeqOpera	2 = Cooling with Reheat
Fan Menu	2
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	N/A
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

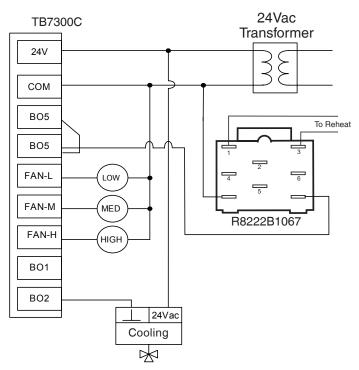
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The cooling valve will open according to demand.

On a call for heating: The duct heater will operate according to demand.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.



Options

BACnet and Wireless models are available. See appendix B for more details.

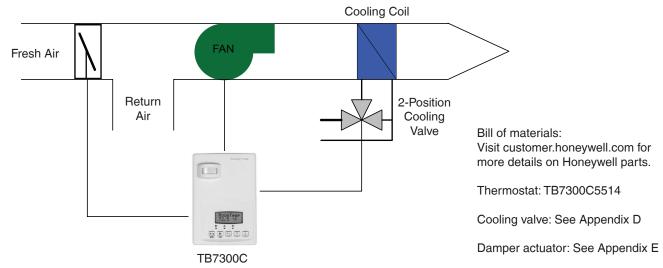
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

Other fan mode configurations can be set for either single speed, dual speed or 3 speed fan mode operation.

TB7300C5514: COOLING ONLY: 2-PIPE FANCOIL UNIT WITH SINGLE SPEED FAN, 2-POSITION COOLING VALVE AND MINIMUM FRESH AIR DAMPER



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	2.0
CntrlTyp	On/Off
SeqOpera	0 = Cooling only
Fan Menu	4
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
cal RS	(1.0 to 2.5 °C, 0.5 °C increments) 0 °F or °C
cal RH	
aux cont	1 (occupied=contact closed, unoccupied=contact open)
Auto Fan	AS or AS AD
FL time	As or AS AD As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
	As per user. Delauit value = 1.5 minutes. Range 0.5 to 9.0 m 0.5 minutes increments
cph Debast	
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used. The auxiliary contact will activate to open the minimum fresh air damper.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from Occupied to Stand-By and then to unoccupied when no motion is detected in the area. The auxiliary contact will activate to open the minimum fresh air damper:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used. The auxiliary contact will de-activate to close the minimum fresh air damper.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is performed at the thermostat. The auxiliary contract will activate to open the minimum fresh air damper.

On a call for cooling: The cooling valve will open according to demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

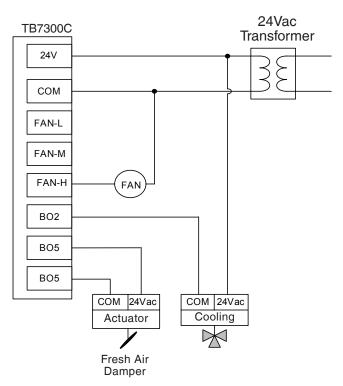
Options

BACnet and Wireless models are available. See appendix B for more details.

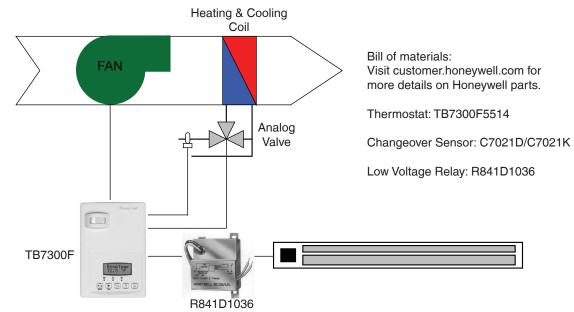
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.



TB7300F5514: COOLING & HEATING WITH CHANGEOVER SENSOR AND REHEAT: 2-PIPE FANCOIL UNIT WITH 3-SPEED FAN, ANALOG VALVE, AND ELECTRIC REHEAT



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	2.0
SeqOpera	2 = Cooling with Reheat
Fan Menu	2
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 $^{\circ}$ F (27 $^{\circ}$ C). Range = 54 to 100 $^{\circ}$ F (12 to 37.5 $^{\circ}$ C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 $^{\circ}$ F (12 $^{\circ}$ C). Range = 54 to 100 $^{\circ}$ F (12 to 37.5 $^{\circ}$ C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
RA/DA	As per Valve
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

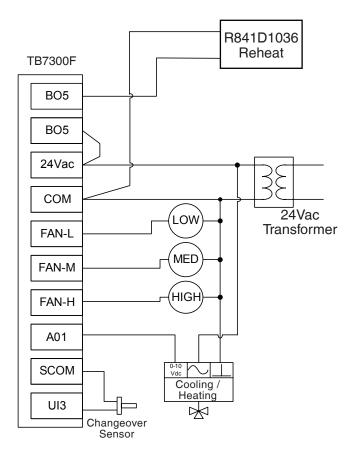
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: If the supply water temperature is less than 75F, the valve will modulate from closed to open according to demand. If the water supply temperature is greater than 77F, the valve will remain closed.

On a call for heating: If the supply water temperature is greater than 77F, the valve will modulate from closed to open according to demand. If the water supply temperature is less than 75F, the valve will remain closed. The perimeter heater will operate as a second step.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.



Options

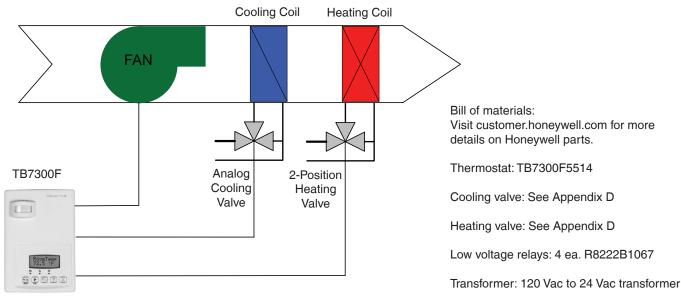
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7300F5514: COOLING WITH REHEAT: LINE VOLTAGE 4-PIPE FANCOIL UNIT WITH 3-SPEED FAN, ANALOG COOLING VALVE AND ON/OFF HEATING VALVE



To enter configuration menu press and hold the override key for 8 seconds. For full explanation of parameters refer to the TB7300 Series Installation Instructions (Form No. 62-2018).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
SeqOpera	2 = Cooling with Reheat
Fan Menu	2
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
RA/DA	As per Valve
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room.

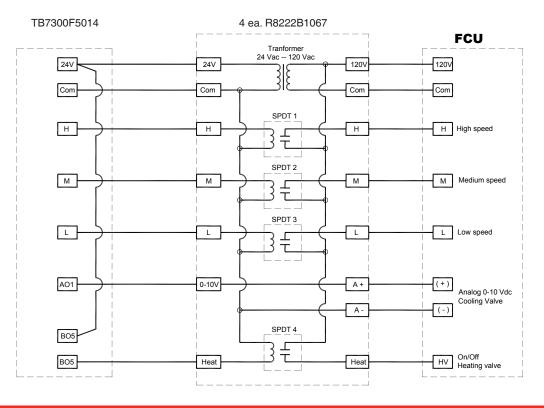
- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The cooling valve will modulate from closed to open according to the demand.

On a call for heating: The heating valve will open according to demand.



Options

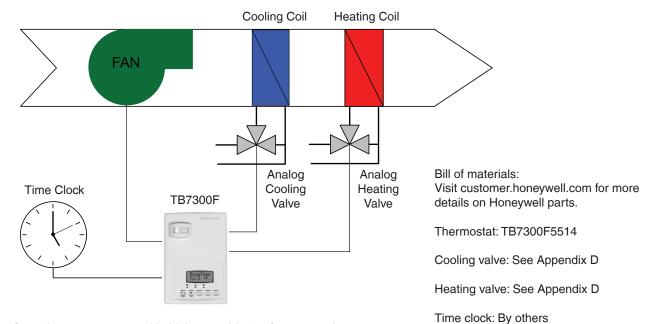
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7300F5514: COOLING & HEATING: 4-PIPE FANCOIL UNIT WITH SINGLE SPEED FAN, 0-10VDC ANALOG COOLING AND HEATING VALVES AND EXTERNAL TIME CLOCK



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	Rem NSB
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
SeqOpera	4 = Cooling and heating
Fan Menu	4 = On-Auto
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
RA/DA	As per Valve
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupancy command from an external time clock:

The occupancy is controlled by an external 24 Vac time clock:

- When the contact of the time clock closes on binary input #1 (BI1), the thermostat will be in occupied mode.
- When the contact of the time clock opens on binary input #1 (BI1), the thermostat will be in unoccupied mode.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating valve will modulate from closed to open according to the demand.

On a call for cooling: The cooling valve will modulate from closed to open according to the demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

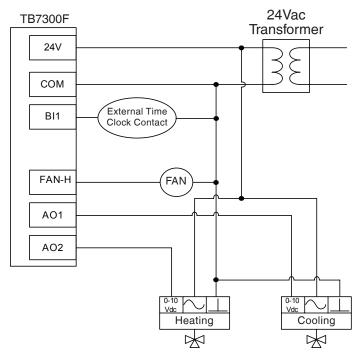
Options

BACnet and Wireless models are available. See appendix B for more details.

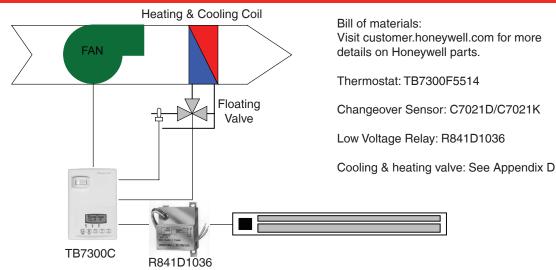
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.



TB7300C5514: COOLING & HEATING WITH CHANGEOVER AND REHEAT: 2-PIPE FANCOIL WITH 3-SPEED FAN, TRI-STATE FLOATING VALVE AND ELECTRIC REHEAT.



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	COS
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	2.0
CntrlTyp	Floating
SeqOpera	2 = Cooling with Reheat
Fan Menu	2
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	N/A
Reheat	0 = 15 minutes for low voltage relays (0 = 4 CPH ON/OFF)
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the standby heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

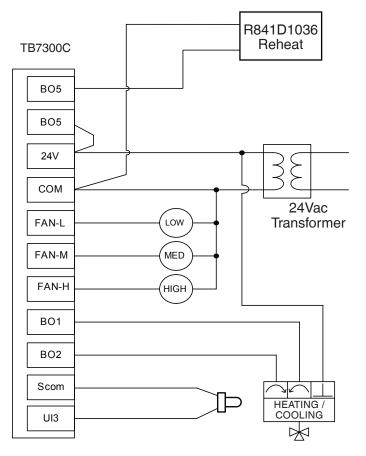
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: If the supply water temperature is less than 75F, the valve will modulate from closed to open according to demand. If the water supply temperature is greater than 77F, the valve will remain closed.

On a call for heating: If the supply water temperature is greater than 77F, the valve will modulate from closed to open according to demand. If the water supply temperature is less than 75F, the valve will remain closed. The perimeter heater will operate as a second step.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.



Note: Actuator Common wires to 24V - Hot terminal.

Options

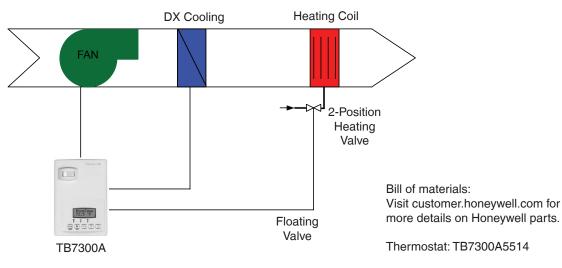
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7300A5514: HEATING & COOLING: FANCOIL UNIT WITH 2-SPEED FAN, DX COOLING AND 2-POSITION VALVE FOR HEATING COIL - WIRELESS NETWORK



Heating valve: See Appendix D

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
SeqOpera	4 = Cooling / Heating 4 pipes
Fan Menu	1 = Low-High
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	N/A
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes:

When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

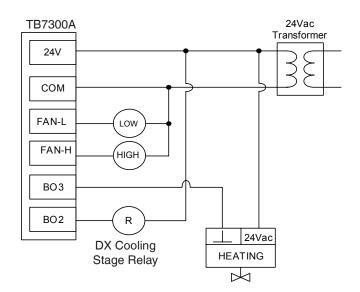
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The cooling relay will operate the DX cooling stage according to demand.

On a call for heating: The heating valve will open according to demand.

Fan mode operation: The 2 speed fan can be set either to automatic speed on demand or manually to either low or medium speed.



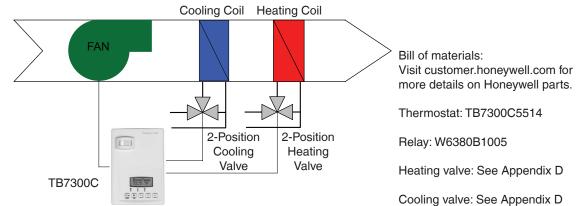
Options

BACnet and Wireless models are available. See appendix B for more details.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7300C5514: 4-PIPE FANCOIL UNIT LINE VOLTAGE TO LOW VOLTAGE WITH 3-SPEED FAN, 2-POSITION VALVES



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
CntrlTyp	On/Off
SeqOpera	4 = Cooling / Heating 4 pipes
Fan Menu	2
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	As per user. 4 to 8 CPH
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

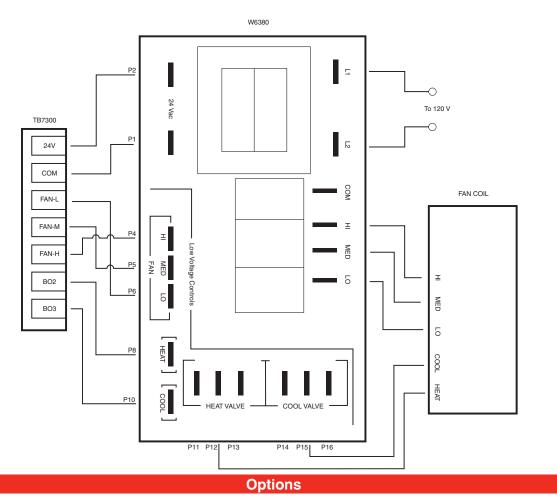
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating valve will open according to demand.

On a call for cooling: The cooling valve will modulate from closed to open according to demand.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.

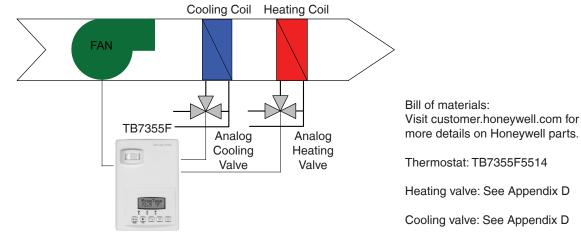


BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7355F5514: HEATING & COOLING: 4-PIPE FANCOIL UNIT WITH 3-SPEED FAN, 0-10VDC ANALOG VALVES AND DEHUMIDIFICATION SEQUENCE



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
%RH disp	ON
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
SeqOpera	4 = Cooling / Heating 4 pipes
Fan Menu	2
DHumiLCK	ON
%RH set	As per user. Default value = 50%. Range = 30% to 95%
DehuHyst	As per user. Default value = 5%. Range = 2% to 20%
DehuCool	As per user. Default value = 100%. Range = 20% to 100%
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 $^{\circ}$ F (27 $^{\circ}$ C). Range = 54 to 100 $^{\circ}$ F (12 to 37.5 $^{\circ}$ C)
heat max	As per user. Default value = 90 $^{\circ}$ F (32 $^{\circ}$ C). Range = 40 to 90 $^{\circ}$ F (4.5 to 32.0 $^{\circ}$ C)
cool min	As per user. Default value = 54 $^{\circ}$ F (12 $^{\circ}$ C). Range = 54 to 100 $^{\circ}$ F (12 to 37.5 $^{\circ}$ C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
RA/DA	Reverse Acting (RA) or Direct Acting (DA), depends on actuator
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

TB7355F

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating valve will modulate from closed to open according to demand. Dehumidification is not authorized during heating operation.

On a call for cooling: The cooling valve will open according to demand. Dehumidification is authorized during cooling operation.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.

On a demand for DEHUMIDIFICATION:

Dehumidification is achieved via the cooling coil using the heating coil for reheat if necessary. Dehumidification is only allowed in COOL mode (or if cooling is enabled in AUTO mode). Dehumidification is disabled if the room temperature falls below the room low ambient dehumidification temperature.

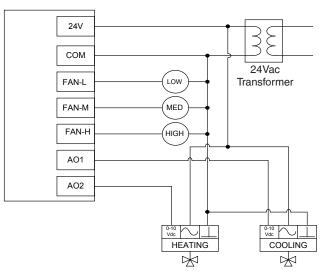
Options

BACnet and Wireless models are available. See appendix B for more details.

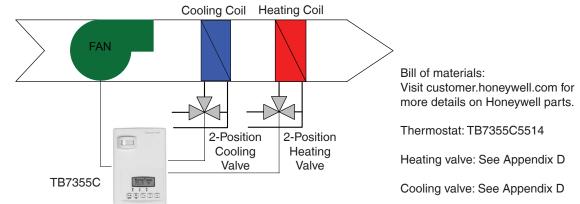
Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

On-Off control or 3 point floating control operation can be accomplished by using other models.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.



TB7355C5514: HEATING & COOLING: 4-PIPE FANCOIL UNIT WITH 3-SPEED FAN, 2-POSITION VALVES AND DEHUMIDIFICATION SEQUENCE



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
%RH disp	ON
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
CntrlTyp	On/Off
SeqOpera	4 = Cooling / Heating 4 pipes
Fan Menu	2
DHumiLCK	ON
%RH set	As per user. Default value = 50%. Range = 30% to 95%
DehuHyst	As per user. Default value = 5%. Range = 2% to 20%
DehuCool	As per user. Default value = 100%. Range = 20% to 100%
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	As per user. 4 to 8 CPH
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

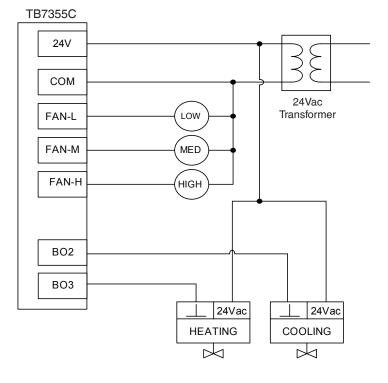
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating valve will open according to demand. Dehumidification is not authorized during heating operation.

On a call for cooling: The cooling valve will modulate from closed to open according to demand. Dehumidification is authorized during cooling operation.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.



On a demand for DEHUMIDIFICATION:

Dehumidification is achieved via the cooling coil using the heating coil for reheat if necessary. Dehumidification is only allowed in COOL mode (or if cooling is enabled in AUTO mode). Dehumidification is disabled if the room temperature falls below the room low ambient dehumidification temperature.

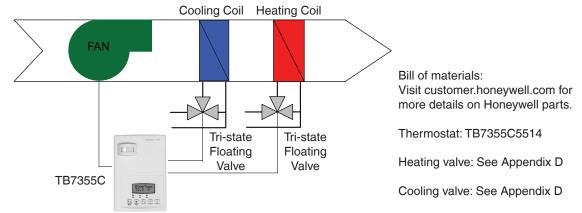
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7355C5514: HEATING & COOLING: 4-PIPE FANCOIL UNIT WITH 3-SPEED FAN, TRI-STATE FLOATING VALVES AND DEHUMIDIFICATION SEQUENCE



To enter configuration menu press and hold the override key for 8 seconds.

For parameters details refer to the TB7300 Series Installation Instructions (Form No. 62-2018).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	None
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
%RH disp	ON
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
CntrlTyp	Floating
SeqOpera	4 = Cooling / Heating 4 pipes
Fan Menu	2
DHumiLCK	ON
%RH set	As per user. Default value = 50%. Range = 30% to 95%
DehuHyst	As per user. Default value = 5%. Range = 2% to 20%
DehuCool	As per user. Default value = 100%. Range = 20% to 100%
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments (1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	As per user. Default value = 1.5 minutes. Range 0.5 to 9.0 in 0.5 minutes increments
cph	N/A
Reheat	0. Not used in this application.
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room:

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

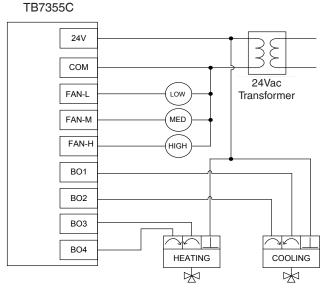
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating valve will modulate from closed to open according to demand. Dehumidification is not authorized during heating operation.

On a call for cooling: The cooling valve will open according to demand. Dehumidification is authorized during cooling operation.

Fan mode operation: The 3 speed fan can be set to automatic speed on demand, or manually to low, medium or high speed.



Note: Actuator Common wires to 24V - Hot terminal.

On a demand for DEHUMIDIFICATION:

Dehumidification is achieved via the cooling coil using the heating coil for reheat if necessary. Dehumidification is only allowed in COOL mode (or if cooling is enabled in AUTO mode). Dehumidification is disabled if the room temperature falls below the room low ambient dehumidification temperature.

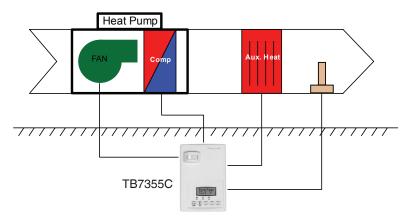
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

2 binary inputs and one universal input can be used and configured for advanced functionality as required by the application. E.g. discharge air sensor, door or window contact input, filter and service alarms, etc.

TB7355C5514: HEATING & COOLING: ONE COMPRESSOR HEAT PUMP WITH 2-SPEED FAN AND DEHUMIDIFICATION SEQUENCE



Bill of materials: Visit customer.honeywell.com for more details on Honeywell parts.

Thermostat: TB7355C5514

Duct sensor: C7021B/C7021C

Low Voltage Relays: R8222B1067

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
BI1	None
BI2	None
UI3	SS
MenuScro	ON
AutoMode	ON
C or F	As per user. Default value = °F
%RH disp	ON
Lockout	As per user. Default value = 0 No lock
Pipe No	4.0
CntrlTyp	ON/OFF
SeqOpera	5 = Cooling / Heating with Reheat 4 pipes
Fan Menu	1
DHumiLCK	ON
%RH set	As per user. Default value = 50%. Range = 30% to 95%
DehuHyst	As per user. Default value = 5%. Range = 2% to 20%
DehuCool	As per user. Default value = 100%. Range = 20% to 100%
St-By TM	0.5 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
Unocc TM	0.0 hours is factory set, range is: 0.0 to 24.0 hours in 0.5hr increments
St-By HT	69 °F is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
St-By CL	78 °F is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Unocc HT	As per user. Default value = 62 °F (17 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
Unocc CL	As per user. Default value = 80 °F (27 °C). Range = 54 to 100 °F (12 to 37.5 °C)
heat max	As per user. Default value = 90 °F (32 °C). Range = 40 to 90 °F (4.5 to 32.0 °C)
cool min	As per user. Default value = 54 °F (12 °C). Range = 54 to 100 °F (12 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Set Type	Permanent
SptFunc	Dual Stp or AttchStp
TOccTime	As per user. Default value 2 hours. Range = 0 to 24 hours
deadband	As per user. Default value 2.0 °F (1.0 °C). Range = 2, 3, 4 or 5 °F, 1.0 °F increments
	(1.0 to 2.5 °C, 0.5 °C increments)
cal RS	0 °F or °C
cal RH	0 °F or °C
aux cont	0
Auto Fan	AS or AS AD
FL time	N/A
cph	4
Reheat	0 for ON/OFF (4CPH), 0 = 15 min with low voltage relay
UI3 dis	Displays supply air temperature if installed

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated stand-by and unoccupied modes: When equipped with a PIR (Passive Infrared) accessory cover the thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to stand-by to unoccupied when no motion is detected in the room.

- During PIR activated stand-by periods, the stand-by heating and cooling setpoints are used.
- During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

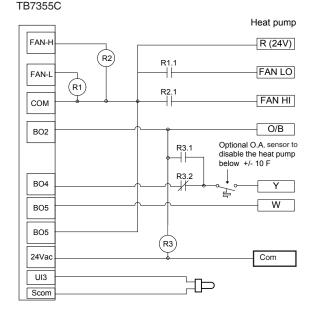
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heat pump relay will operate the heat pump compressor and de-activate the reversing valve according to demand. The duct heater will operate as a second step. Dehumidification is not authorized during heating operation.

On a call for cooling: The heat pump relay will operate the heat pump compressor and activate the reversing valve according to demand. Dehumidification is authorized during cooling operation.

Fan mode operation: The 2 speed fan can be set either to automatic speed on demand or manually to either low or medium speed.



On a demand for DEHUMIDIFICATION:

Dehumidification is achieved via the cooling coil using the heating coil for reheat if necessary. Dehumidification is only allowed in COOL mode (or if cooling is enabled in AUTO mode). Dehumidification is disabled if the room temperature falls below the room ambient dehumidification temperature.

Options

BACnet and Wireless models available (see Appendix B for network wiring).

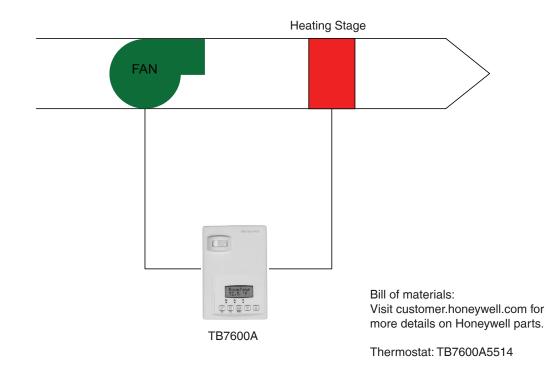
Analog outputs available (*different models) .

Can be configured for 4 pipe systems.

Binary inputs can be configured to control occupancy via door or window contact, remote night setback or to provide alarms for service or filter monitoring.

Universal input can be configured for supply air monitoring / Remote wall mount or duct sensor ready.

TB7600A5514: 1H UNIT: 1 UNIT HEATER WITH SINGLE SPEED FAN



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	None
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. or N.C.
Prog rec	ON

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating stage will operate according to demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on mode.

TB7600A Unit Heater G RC C RH W1

Options

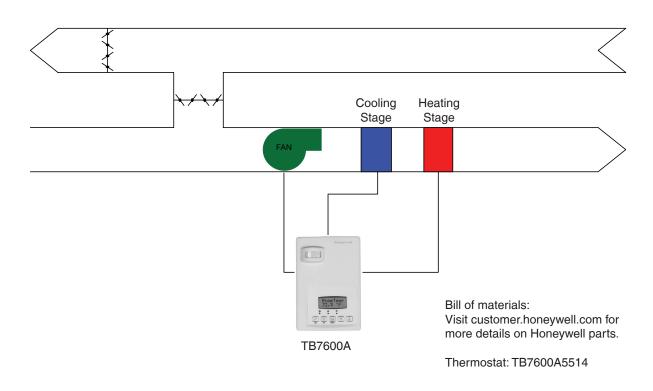
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.

TB7600A5514: 1H & 1C ROOFTOP UNIT: 1 HEATING STAGE, 1 COOLING STAGE WITH SINGLE SPEED FAN



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	None
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. or N.C.
Prog rec	ON

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

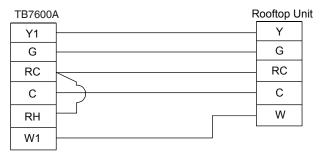
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating stage will operate according to demand.

On a call for cooling: The cooling stage will operate according to demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.



Options

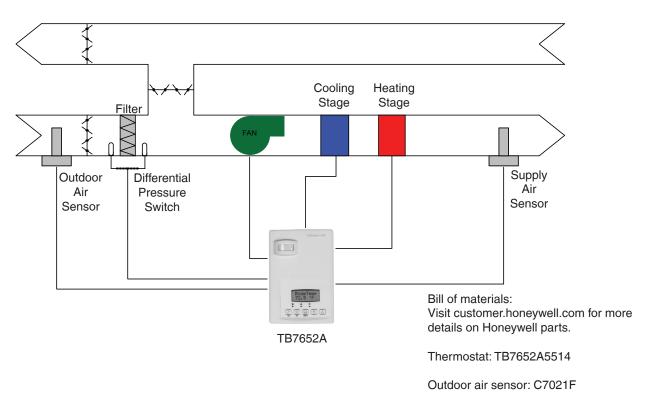
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.

TB7652A5514: 1H & 1C ROOFTOP UNIT: 1 HEATING STAGE, 1 COOLING STAGE WITH DIFFERENTIAL PRESSURE SWITCH FOR FILTER ALARM



Supply air sensor: C7021B/C7021C

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	Filter
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. or N.C.
Prog rec	ON

Local schedule: A local schedule (7 days, 2 or 4 events) internal to the thermostat is used to trigger the different occupancy levels of the thermostat. Use only if thermostat is not networked. For networked thermostat, use WEBs-AX Workbench scheduling.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

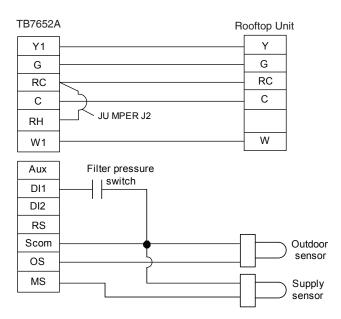
Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating stage will operate according to demand.

On a call for cooling: The cooling stage will operate according to demand.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

Filter Alarm: When the filter has to be cleaned, the differential pressure switch will close the contact on DI1 input and a local alarm will be displayed.



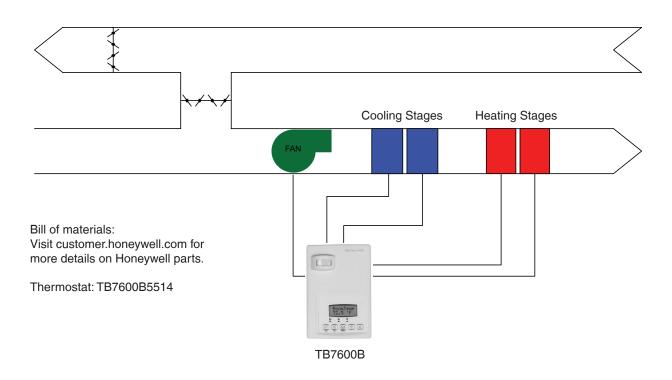
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

TB7600B5514: 2H & 2C ROOFTOP UNIT: 2 HEATING STAGES, 2 COOLING STAGES WITH SINGLE SPEED FAN



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	None
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	2
C stage	2
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. or N.C.
Prog rec	ON

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for heating: The heating stages will operate according to demand.

On a call for cooling: The cooling stages will operate according to demand.

Local schedule: A local schedule (7 days 2 or 4 events) internal to the thermostat is used to trigger the different occupancy levels of the thermostat. Use only if thermostat is not networked. For networked thermostat, use WEBs-AX Workbench scheduling.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

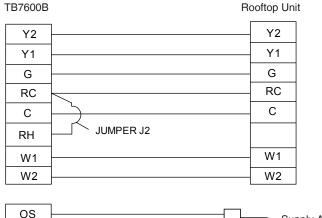
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

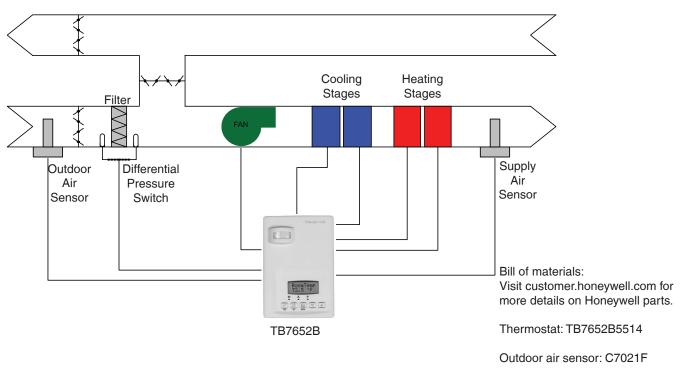
One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.





TB7652B5514: 2H & 2C ROOFTOP UNIT: 2 HEATING STAGES, 2 COOLING STAGES WITH DIFFERENTIAL PRESSURE SWITCH FOR FILTER ALARM



Supply air sensor: C7021B/C7021C

To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	Filter
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	2 stages is factory default, range is: 1 or 2 stages
C stage	2 stages is factory default, range is: 1 or 2 stages
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. or N.C.
Prog rec	ON

Supply air sensing: A supply air sensor is used for remote monitoring or the discharge air temperature of the HVAC equipment.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

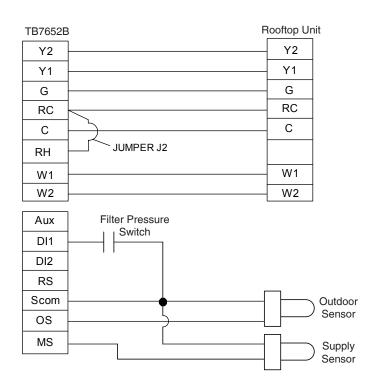
On a call for heating: The heating stages will operate according to demand.

On a call for cooling: The cooling stages will operate according to demand.

Local schedule: A local schedule (7 days, 2 or 4 events) internal to the thermostat is used to trigger the different occupancy levels of the thermostat. Use only if thermostat is not networked. For networked thermostat, use WEBs-AX Workbench scheduling.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

Filter Alarm: When the filter has to be cleaned, the differential pressure switch will close the contact on DI1 input and a local alarm will be displayed.



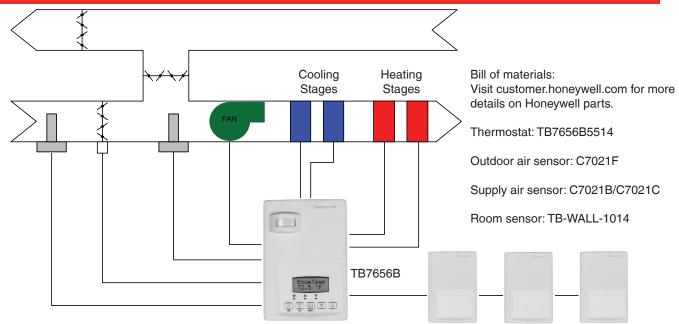
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

TB7656B5514: 2H & 2C ROOFTOP UNIT WITH ECONOMIZER: 2 HEATING STAGES, 2 COOLING STAGES, ANALOG 0-10VDC FRESH AIR DAMPER ACTUATOR AND SENSOR AVERAGING



To enter configuration menu press and hold the override key for 8 seconds. For parameters details refer to the TB7600 Series Installation Instructions (Form No. 62-2016).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	Filter
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	2 stages
C stage	2 stages
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. normally open
Prog rec	ON
chngst pt	55 °F (13.0 °C) is default value, range is:14 to 70 °F (-10.0 to 21.0 °C)
Min pos	0% is factory default, range is: 0 to 100%
C mech	ON
mix stpt	55 °F (13.0 °C) is factory default, range is: 50 to 90 °F (10.0 to 32.0 °C)

Supply air sensing: A supply air sensor is used for remote monitoring or the discharge air temperature of the HVAC equipment.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the area. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used. The minimum position of the economizer fresh air damper is disabled.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used. The minimum position of the economizer fresh air damper is disabled.

On a call for heating: Heating stages will operate according to demand.

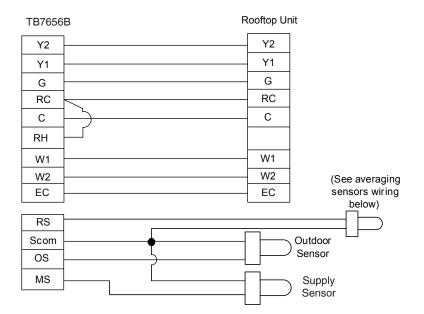
On a call for cooling:

If the outdoor air temperature allows for economizer free cooling operation:

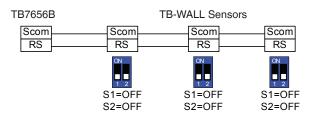
- The first stage of cooling is outdoor air free cooling and will maintain a low limit mixed air setpoint.
- The mechanical cooling stages will operate as a second and third cooling stages based on demand.

If the outdoor air temperature does not allow for economizer free cooling operation:

• The cooling stages will operate according to demand.



Averaging Sensor Wiring & Dip Switch Settings



Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used. The minimum position of the economizer fresh air damper is enabled.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

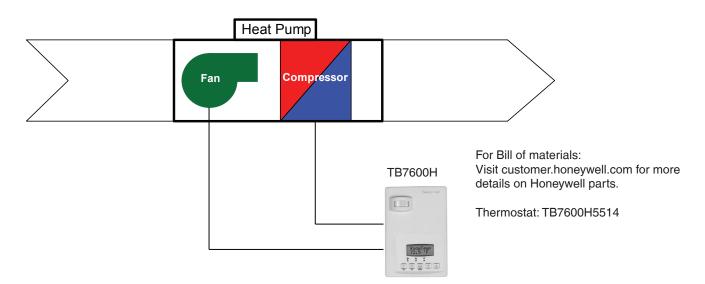
Options

BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

TB7600H5514: 1H & 1C HEATPUMP: 1 COMPRESSOR FOR HEAT & COOL



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	None
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
HP stage	1 stage
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat
	only)
Aux cont	N.O. normally open
Prog rec	OFF
high bp	90 °F (32.0 °C) is default value, range is: 34 to 90 °F (1.0 to 32.0 °C)
low bp	-12 °F (-24.0 °C) is default value, range is: -40 to 30 °F (-40.0 to -1.0 °C)
comf/eco	Comfort mode or Economy mode
re valve	O when reversing valve energized in cooling or B when energized in heating
Comp/aux	OFF

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The compressor output will operate the heatpump compressor and energize the reversing valve according to demand.

On a call for heating: The compressor output will operate the heatpump compressor stages and de-energize the reversing valve according to demand. The duct heater will operate as a third step.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

TB7600H Heatpump Y1 Y G G RC C C C RH 0/B

Options

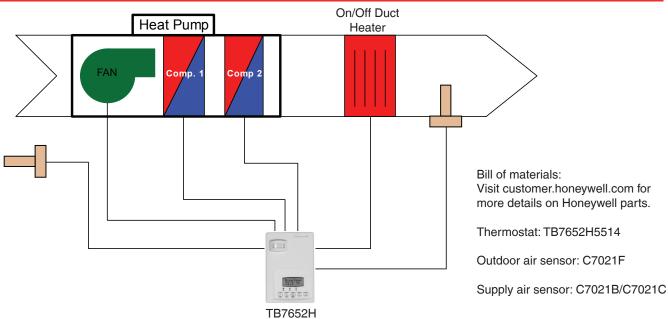
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.

TB7652H5514: 3H & 2C HEATPUMP: 2 COMPRESSORS FOR HEAT, COOL AND ELECTRIC DUCT HEATER



To enter configuration menu press and hold the override key for 8 seconds.

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
DI1	Filter
DI2	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
Com Addr	Found on BACnet models only
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	2 stages
HP stage	2 stages
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: From -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. normally open
Prog rec	ON
high bp	90 °F (32.0 °C) is default value, range is:34 to 90 °F (1.0 to 32.0 °C)
low bp	-12 °F (-24.0 °C) is default value, range is:-40 to 30 °F (-40.0 to -1.0 °C)
comf/eco	Comfort mode or Economy mode
re valve	O when reversing valve energized in cooling or B when energized in heating
Comp/aux	OFF

Supply air sensing: A supply air sensor is used for remote monitoring or the discharge air temperature of the HVAC equipment.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupiedby heating and cooling setpoints are used.

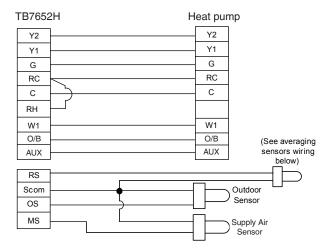
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The compressor output will operate the heatpump compressor stages and energize the reversing valve according to demand.

On a call for heating: The compressor output will operate the heatpump compressor stages and de-energize the reversing valve according to demand. The duct heater will operate as a third step.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.



Options

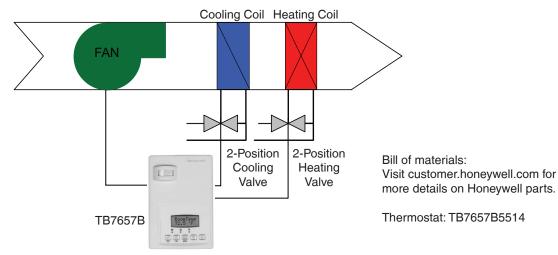
BACnet and Wireless models are available. See appendix B for more details.

Remote wall mounted sensor or a return air temperature sensor can be used instead of the internal temperature sensor of the thermostat. See appendix F for more details on available 10K ohm NTC Type II sensors.

One monitoring supply air temperature input and 2 digital inputs can be used and configured for advanced functionality if required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.

TB7657B5514: 1H/1C 4-PIPE FANCOIL UNIT WITH SINGLE SPEED FAN, 2-POSITION VALVES AND DEHUMIDIFICATION SEQUENCE



To enter configuration menu press and hold the override key for 8 seconds.

For full explanation of parameters refer to the TB7600 Series with Humidity Control Installation Instructions (Form No. 62-2017).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
%RH disp	
DI	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
Com Addr	Found on BACnet models only
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	1 stages
C stage	1 stages
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. normally open
Prog rec	ON
RH LT	-20 °F (-29 °C) is factory set, range is: -40 to 15 °F (-40 to -9.5 °C)
RH HT	32 °F (0 °C) is factory set, range is: 20 to 55 °F (-6.5 to 13 °C)
HL Sp	85% RH is factory default, range is: 50% RH to 90% RH
Dhu LCK	Off
Dhu OALK	32 °F (0 °C) is factory default, range is: -40 °F up to 122 °F (-40 °C up to 50 °C)
DehuHyst	5% RH is factory default, range is: 2% RH to 20% RH
RE Sp	20% RH is factory default, range is: 10% RH to 90% RH
RH cal	0% RH is factory default, range is: -15% RH to 15% RH
Display HL	Used for diagnostics

Sequence of Operation and Wiring

Supply air sensing: A supply air sensor is used for remote monitoring or the discharge air temperature of the HVAC equipment.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

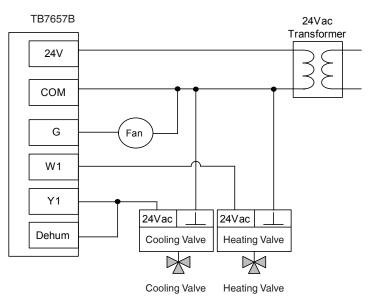
On a call for heating: The heating valve will modulate from closed to open according to demand. Dehumidification is not authorized during heating operation.

On a call for cooling: The cooling valve will open according to demand. Dehumidification is authorized during cooling operation.

Fan mode operation: The single speed fan can be set to either automatic on demand or always on.

On a demand for DEHUMIDIFICATION:

Dehumidification is achieved via the cooling coil using the heating coil for reheat if necessary. Dehumidification is only allowed in COOL mode (or if cooling is enabled in AUTO mode). Dehumidification is disabled if the room temperature falls below the room the low ambient dehumidification temerature.



Note: This application is not recomended with DX mechanical cooling. Dehumidification simply energizes the cooling valve. Heating will be enabled to compensate low ambient temperature only if the system mode is set to auto.

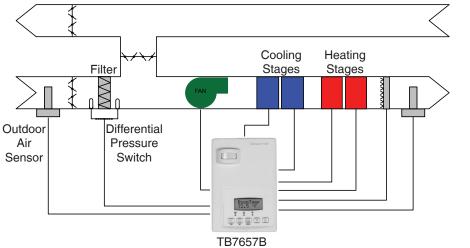
Options

BACnet and Wireless models are available. See appendix B for more details.

1 digital input can be used and configured for advanced functionality as required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.alarms for service or filter monitor.

TB7657B5514: 2H & 2C ROOFTOP UNIT WITH HUMIDIFICATION: 2 HEATING & 2 COOLING STAGES WITH AN ANALOG 0-10VDC HUMIDIFIER AND A DIFFERENTIAL PRESSURE SWITCH FOR FILTER ALARM



Bill of materials: Visit customer.honeywell.com for more details on Honeywell parts.

Thermostat: TB7657B5514

Outdoor air sensor: C7021F

Supply air sensor: C7021B/C7021C

To enter configuration menu press and hold the override key for 8 seconds.

For full explanation of parameters refer to the TB7600 Series with Humidity Control Installation Instructions (Form No. 62-2017).

Configuration parameter name	Configuration settings
PswrdSet	0 is factory set, range is: 0-1000
%RH disp	
DI	None
Lockout	As per user: (see manual for details) set to "0" for full access
pwr del	10 seconds is factory set, range is: 10 to 120 seconds
Frost pr	ON
Heat max	90 °F (32 °C) is factory set, range is: 40 to 90 °F (4.5 to 32.0 °C)
Cool min	54 °F (12 °C) is factory set, range is: 54 to 100 °F (12.0 to 37.5 °C)
Pband	2 °F is factory set, range is: 2 to 10 °F (0.6 to 5.6 °C)
anticycle	2 minutes is factory set range is: 0,1,2,3,4 & 5 minutes
Heat cph	4 C.P.H is factory set, range is: 3, 4, 5, 6,7 & 8 CPH
Cool cph	4 CPH is factory set, range is: 3 or 4 CPH
deadband	2.0 °F (1.1 °C) is factory set, range is: 2, 3 or 4 °F (1.0 to 2.0 °C)
fan cont	ON, Auto or Smart (see manual for details)
Fan del	OFF
Com Addr	Found on BACnet models only
ToccTime	3 hours is factory default, range is: 0 to 12 in one hour increments
cal RS	0.0 °F or °C
cal OS	0.0 °F or °C
H stage	2 stages
C stage	2 stages
H lock	120 °F (49 °C) is factory default, range is: -15 °F up to 120 °F (-26 °C up to 49 °C)
C lock	-40 °F (-40 °C) is factory default, range is: -40 °F up to 95 °F (-40 °C up to 35 °C)
Unocc TM	0.5 hours is factory set, range is: 0.5 to 24.0 hours in 0.5hr increments
2/4event	2 events is factory default, can also be set to 4 events (for non-networked thermostat only)
Aux cont	N.O. normally open
Prog rec	ON
RH LT	-20 °F (-29 °C) is factory set, range is: -40 to 15 °F (-40 to -9.5 °C)
RH HT	32 °F (0 °C) is factory set, range is: 20 to 55 °F (-6.5 to 13 °C)
HL Sp	85% RH is factory default, range is: 50% RH to 90% RH
Dhu OALK	32 °F (0 °C) is factory default, range is: -40 °F up to 122 °F (-40 °C up to 50 °C)
DehuHyst	5% RH is factory default, range is: 2% RH to 20% RH
RE Sp	20% RH is factory default, range is: 10% RH to 90% RH
RH cal	0% RH is factory default, range is: -15% RH to 15% RH
Display HL	Used for diagnostics

Sequence of Operation and Wiring

Supply air sensing: A supply air sensor is used for remote monitoring or the discharge air temperature of the HVAC equipment.

Occupied mode: During occupied periods, the occupied heating and cooling setpoints are used.

PIR activated unoccupied mode: When equipped with a PIR (Passive Infrared) accessory cover a thermostat provides advanced active occupancy logic, which will automatically switch occupancy levels from occupied to unoccupied when no motion is detected in the room. During PIR activated unoccupied periods, the unoccupied-by heating and cooling setpoints are used.

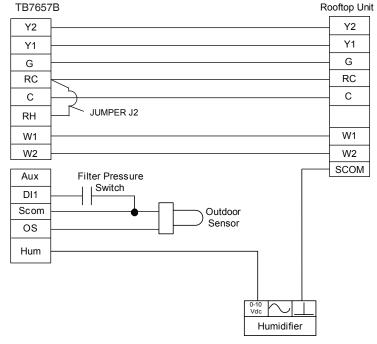
Unoccupied mode: During unoccupied periods, the unoccupied heating and cooling setpoints are used.

Local override: The thermostat will revert back to the occupied mode as specified by a configuration timer when a local override is requested at the thermostat.

On a call for cooling: The cooling stages will operate according to demand.

On a call for heating: The heating stages will operate according to demand.

Local schedule: A local schedule (7 days, 2 or 4 events) internal to the thermostat is used to trigger the different occupancy levels of the thermostat. Use only if thermostat is not networked. For networked thermostat use WEBs-AX Workbench scheduling.



On a call for humidification:

The humidification proportional output (HUM) will be energized to modulate the humidifier.

Filter Alarm: When the filter has to be cleaned, the differential pressure switch will close the contact on DI1 input and a local alarm will be displayed.

Options

BACnet and Wireless models are available. See appendix B for more details.

1 digital input can be used and configured for advanced functionality as required by the application. E.g. Remote night setback, remote override, filter and service alarms, etc.

An outdoor temperature input can be used and configured for the lockout of heating and cooling operation.alarms for service or filter monitor.

APPENDIX A: PASSIVE INFRARED (PIR) OCCUPANCY SENSOR COVERS TECHNICAL SPECIFICATIONS

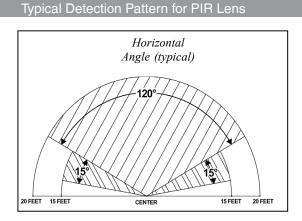
PIR Cover Sequence Of Operation

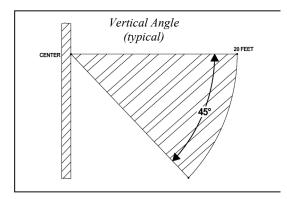
Initially, the thermostat is in Stand-by mode. Stand-by setpoints are used at the thermostat. As soon as the PIR detects a movement or motion, the Occupancy status switches to Occupied and the Stand-By Time timer is reset. The Occupied setpoints are used. If no motion is detected in the room for the entire Stand-By Time duration (adjustable parameter), the room then switches to Stand-by mode and stand-by setpoints are used. While in Stand-by mode, if no motion is detected for the entire Unoccupied Time period (adjustable parameter), the room switches to Unoccupied mode and uses its Unoccupied setpoints. While in Stand-By or Unoccupied mode, any motion will switch the room back to Occupied mode.

Thermostat Model Selection Based On PIR Cover

PIR Cover Ready Thermostats	Thermostats With Factory Assembled PIR Cover
TB7200X5014	TB7200X5514
TB73xxX5014	TB73xxX5514
TB76xxX5014	TB76xxX5514

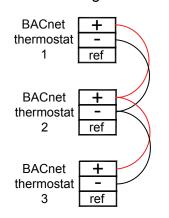
At the end of the model number add B for BACnet models or W for ZigBee wireless models. Ex: TB76xxX5014B, TB76xxX5014W.





APPENDIX B: NETWORK WIRING

BACnet communication wiring



Note:

- Wiring should be daisy chained.
- Respect polarity.
- If using 2 conductors shielded wires, connect the shield of each feed together on the back of the thermostat. ONLY ground the shield at one location. DO NOT connect the shield to the ref terminal.
- If using 2 conductors shielded wires, same connections as above but you can wire the 3rd conductor to the ref therminal for troubleshooting purposes.

Wireless communication

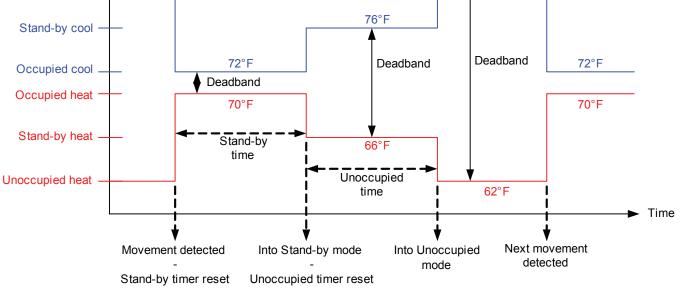




Notes: - No communication wires needed

Setpoints Unoccupied cool

APPENDIX C: THERMOSTATS' OCCUPANCY SEQUENCE OF OPERATION SCHEMATIC



APPENDIX D: CONTROL VALVE APPLICATIONS & SELECTION CRITERIA

			_	_	Cont	rol Valve A	pplications	5	_				
		1/2" DN15	3/4" DN20	1" DN25	1-1/4" DN32	1-1/2" DN40	2" DN50	2-1/2" DN65	3" DN80	4" DN100	5" DN125	6" DN150	8~20" >DN200
	Fan Coil Units	Cartridge	one valves cage valve regulated v	es									
	Unit Heaters	Cartridge	one valves cage valve regulated v	es									
	Convectors	Fan coil/z Cartridge Cartridge	one valves cage valve globe valv regulated v	es									
ui pment	Radiant Panels	Cartridge Cartridge	one valves cage valve globe valve regulated v	es									
Unitary Equipment	Unit Ventilators	Cartridge Control ba	cage valve globe valve all valves regulated v	es									
	Reheat Coils	Cartridge Control ba	cage valve globe valve all valves regulated v	es									
	Water Source Heat Pump	Control ba	regulated v	valves									
	Blower Coil	Control ba Pressure			es globe valv	es							
		Threaded globe valve Image: Control ball valves											
g Units	Heating & Cooling Coils		regulated v					Flanged	globe valve	Flanged I	call valve		
Air Handling Units	Chilled Ceiling	Threaded Threaded	globe valv control ba regulated v	e II valves									
	Humidifiers		globe valv					Flanged	globe valve				
	Outdoor reset		globe valv control ba										
								Flanged	globe valve	Flanged I	call valve		
			globe valv control ba		-		-						
	Boiler Bypass								globe valve	Flanged I	call valve		
		Threaded	globe valv				Resilient	seat butter	fly valves				
	Heat reclaim	Threaded	control ba	ll valves									
	Steam Heat Exchangers	Threaded	globe valv				<u> </u>	Flanged	globe valve				
ŧ			globe valv control ba										
Central Plant	Greenhouse								globe valve	Flanged I	call valve		
Cen		Threaded	globe valv	re	-		Resilient	seat butter	ily valves				
	Thermal Storage	Threaded	control ba	ll valves				Flanged	globe valve				
		Threaded	globe valv				Resilient	seat butter					
			control ba		1								
	Chillers								globe valve	Flanged I	call valve		
		Pressure	regulated v	valves			Resilient	seat butter	tly valves				
	Ocaliza Turna	Threaded	globe valv	re									
	Cooling Towers	Inreaded	control ba	II valves			Resilient	seat butter	fly valves				
	Isolation valves	Threaded	control ba	ll valves			Resilient	seat butter	fly valves				
		I	L			L							

APPENDIX D: 2-WAY CONTROL VALVE SELECTION CRITERIA

			Ilni	tary				Gl	be		
		E	-	Cartridge	Cartridge		Thursday	un		Flowerd	
			Coil	Cage	Globe		Threaded			Flanged	
Attribute	Specification	VU52	VU53	VCzA/B	V58x2	V5011N	V5011F	V5011G	V5011A	V5011B	VGF2xS
	1/2" [DN15] 3/4" [DN20]	•	•	•	•	•					
	1" [DN25]	•	•	•		•					
	1-1/4" [DN32]	•		•		•					
	1-1/2" [DN40]					•					
	2" [DN50]					•					
Pipe Size	2-1/2" [DN65]						•	•	•		•
	3" [DN80]						•	•	•		•
	4" [DN100]								•	•	•
	5" [DN125]								•	•	•
	6" [DN150]								•	•	•
	Other (maximum size)										
	Sweat	•	•	•	•						
Pipe Fittings	NPT Internal Thread	٠	•	•	•	•	•	•			
Fiperinnigs	Inverted Flare	•	•	•							
	ANSI Flange								•	•	•
	ANSI 125/150					•	•	•	•	•	•
Static Pressure	ANSI 250/300										•
	Other) psi	300 psi	230 psi						
	Chilled Water	٠	•	•	•	•	•	•	•	•	•
Media	Hot Water	•	•	•	•	•	•	•	•	•	•
	Low Pressure Steam					N1, N3	•	•	•	•	•
	High Pressure Steam					N2		•			•
Flow Capacity, Cv	Multiple ratings per pipe size	•	•	•	•	•	•	•			
	One rating/size above 1/2"					•	•	•	•	•	•
	Direct Acting ****					N1, N2	•	•	•		•
Valve Action	Reverse Acting *****			•	•	N3				•	
varvo / lotion	Rotary N.O.	•									
	Rotary N.C.		•		•	•			•	•	•
	Equal Percentage			•	•	•	•		•	•	•
Flow Characteristic	Modified Equal Percentage Linear			•		•		•			•
	Quick Open	•	•	•		-		-			-
	High** (100 psid minimum)	-	-	-	•						
Close-off	Medium (40 psid minimum)			•	•						
pressure***	Varies with actuator	•	•			•	•	•	•	•	•
	ANSI Class III (0.10% Cv max.)				0.02%	0.05%				1	•
Maximum Seat	ANSI Class IV (0.01% Cv max.)				0.0270	0.0070			•	•	
Leakage	Bubble-tight design			•							
	Other (see product data literature)	33 r	nL/m				0.5%	0.5%			
	High (50:1 minimum)				•	•	•	•	•	•	•
Rangeability	Medium* (15~50:1)	N	/A	•							
	Low (under 15:1)										
	Brass, plated brass, bronze					N3	•		•	•	
Trim	Brass plug /Stainless seat					N1					
	Stainless Steel					N2		•			•
	Resilient materials	•	•	•	•						
In the	Cartridge	•	•	•	•						
In-line Serviceability	Packing					•	•	•	•	•	•
	Rebuild					•	•	•	•	•	
	Electronic Modulating			•	•	•	•	•	•	•	•
	Tri-state floating			•	•	•	•	•	•	•	•
	Pulse Width Modulation			•							
	2-position low voltage	•	•	•	0	•	•	•	•	•	•
Actuation Options	2-position line voltage	•	•	•		•	•	•	•	•	•
	Electric Spring Return	•	•		•	•	•	•	•	•	•
	Electronic Fail Safe			•						-	
	Pneumatic, low pressure				•	•	•	•	•	•	•
	Pneumatic bidirectional (Hi-Pr)										
	Pneumatic spring return (Hi-Pr)	utdoor air ter									

Notes

* Best used with supply water reset from outdoor air temperature.
 ** Can dead-head pumps. Use with VFD-controlled pumps with maximum pressure cut-out
 **** Maximum operating differential pressure. Static close-off pressure may be higher. Maximum pressure for quiet service may be less.
 ***** Stem down to close
 ***** Stem up to close
 81

APPENDIX D: 2-WAY CONTROL VALVE SELECTION CRITERIA (CONTINUED)

		Glo	be	Contro	ol Ball	Pressure-	Regulated	Butt	erfly
		Pressure-	Balanced	Threaded	Flanged	Threaded	Wafer	Resilie	nt Seat
Attribute	Specification	V5862A3	VGF2xP	VBN2	VBF2	VRN2	Flanged VRW2	VFF1	VFF2
Attibute	1/2" [DN15]	VJULAU	TUI ZAI	•	VDI 2	•	11112		1112
	3/4" [DN20]			•		•			
	1" [DN25]	•		•		•			
	1-1/4" [DN32]	٠		•		•			
	1-1/2" [DN40]	٠		•		•			
Dina Siza	2" [DN50]			•		•		•	•
Pipe Size	2-1/2" [DN65]		•	•		•	•	٠	•
	3" [DN80]		•	•		•	•	•	•
	4" [DN100]		•		•		•	•	•
	5" [DN125]		•		•		•	•	•
	6" [DN150]		•		•		•	•	•
	Other (maximum size)							20" [D	N500]
	Sweat								
Pipe Fittings	NPT Internal Thread	•		•		•			
	Inverted Flare								
	ANSI Flange		•		•		•	•	•
Otatia D	ANSI 125/150		•		•		•		
Static Pressure	ANSI 250/300	000) noi	000	nei	000	•	050	nei
	Other Chilled Water) psi		psi	360 psi			psi
	Chilled Water	•	•	•	•	•	•	•	•
Media	Hot Water	•	•	•	•	•	•	•	•
	Low Pressure Steam High Pressure Steam		•						
		-	•	•	•	v (apm)	y (anm)		
Flow Capacity, Cv	Multiple ratings per pipe size One rating/size above 1/2"	•	•	•	•	x (gpm)	x (gpm)	•	•
	Direct Acting ****	•	•					•	-
	Reverse Acting *****		-						
Valve Action	Rotary N.O.			0	0	0	0	•	0
	Rotary N.C.			•	•	•	•	-	•
	Equal Percentage		•			•	•		
	Modified Equal Percentage			•	•			•	•
Flow Characteristic	Linear	•	•			•			
	Quick Open								
	High** (100 psid minimum)	•	•	•	•	•	•	•	•
Close-off pressure***	Medium (40 psid minimum)							•	•
pressure	Varies with actuator								
	ANSI Class III (0.10% Cv max.)			İ		•			
Maximum Seat	ANSI Class IV (0.01% Cv max.)	•	•	•	•			•	•
Leakage	Bubble-tight design							•	•
	Other (see product data literature)						< 0.2%		
	High (50:1 minimum)	•	•	•	•	•	•		
Rangeability	Medium* (15~50:1)			0		< 10 gpm			
	Low (under 15:1)							•	•
	Brass, plated brass, bronze			•		•			
Trim	Brass plug /Stainless seat								
	Stainless Steel	•	•	•	•	•	•		
	Resilient materials					•	•	•	•
In-line	Cartridge					•	•		
In-line Serviceability	Packing	•	•	•	•	•	•		
	Rebuild				•	Regulator			
	Electronic Modulating	•	•	•	•	•	•	•	•
	Tri-state floating	•	•	•	•	•	•	•	•
	Pulse Width Modulation								
	2-position low voltage		•	•	•	0	0		ited
Actuation Options	2-position line voltage		•	0	0	0	0	•	•
	Electric Spring Return	•	•	•	•	•		Lim	ited
	Electronic Fail Safe						•		ited
	Pneumatic, low pressure		•						ited
	Pneumatic bidirectional (Hi-Pr)							•	•
	Pneumatic spring return (Hi-Pr)							•	•

Notes

* Best used with supply water reset from outdoor air temperature.
 ** Can dead-head pumps. Use with VFD-controlled pumps with maximum pressure cut-out
 **** Maximum operating differential pressure. Static close-off pressure may be higher. Maximum pressure for quiet service may be less.
 ***** Stem down to close
 ***** Stem up to close
 82

			Unit	ary				Globe		
	Fan Coil	Cartridge		je Globe	Threaded			nged		
Attribute	Specification	VU54	Cage VCzM/N	V58x3	V5863A3	V5013N	V5013B	V5013C	VGF3xLD	VGF3xEM
Attibuto	1/2" [DN15]	•	•	•	TOUCOND	•	100100	100100	FUI ONED	Tur Oxam
	3/4" [DN20]	•	•	•		•				
	1" [DN25]	•	•		•	•				
	1-1/4" [DN32]		•		•	•				
	1-1/2" [DN40]				•	•				
Pipe Size	2" [DN50] 2-1/2" [DN65]					•	•		•	•
	3" [DN80]						•		•	•
	4" [DN100]						•	•	•	•
	5" [DN125]						•	•	•	•
	6" [DN150]						•	•	•	•
	Other (maximum size)									
	Sweat	•	•	•						
Pipe Fittings	NPT Internal Thread	•	•	•	•	•				
	Inverted Flare ANSI Flange	•	•				•	•	•	•
	ANSI 125/150					•	•		•	•
Static Pressure	ANSI 250/300						-	-	•	•
	Other	300 psi	300 psi	230 psi	230 psi					
Media	Chilled Water	•	•	•	•	•	•	•	•	•
ivieula	Hot Water	٠	•	٠	•	•	٠	•	•	•
Flow Capacity, Cv	Multiple ratings per pipe size	•	•	•	•	•				
now oupdoily, ov	One rating/size above 1/2"					•	•	•	•	•
	Mixing A-B-AB porting			•	•	•	•			•
Valve Action	Mixing A-AB-B porting Diverting AB-B-A porting	•	•					•	•	
	Diverting A-AB-B porting		•							
	Equal Percentage			•		•				•
A-port Flow	Modified Equal Percentage		•							
Characteristic	Linear		•		•		•	•	•	
	Quick Open	•	•							
	Modified Equal Percentage									
B-port Flow	Linear		•			•	•	•	•	•
B-port Flow Characteristic	Linear, Reduced Cv Total Constant Flow			•	•	•	•	•	•	
	Quick Open	•		•	•	•	•	•	•	
	High (60 psid minimum)	-	•	•	•					
Close-off	Medium (30 psid minimum)			•						
pressure***	Varies with actuator	•				•	•	•	•	•
	ANSI Class III (0.10% Cv max.)			•	•	•			•	
Maximum Seat	ANSI Class IV (0.01% Cv max.)						•	•		
Leakage**	Bubble-tight design		•							
	Other (see product data literature)	33 mL/m								A = 0.5%
Democrahility	High (50:1 minimum)	B1/A		•	•	•	•	•	•	•
Rangeability	Medium* (15~50:1) Low (under 15:1)	N/A	•							
	Brass, plated brass, bronze				•	•	•	•		
Trim	Stainless Steel					0		·	•	•
	Resilient materials	•	•	•						
	Cartridge	•	•	•						
In-line Serviceability	Packing				•	•	•	•	•	•
	Rebuild					•	•	•		
	Electronic Modulating		•	•	•	•	•	•	•	•
	Tri-state floating		•	•	•	•	•	•	•	•
	Pulse Width Modulation		•	<u> </u>						
	2-position low voltage 2-position line voltage	•	•	0	0	•	•	•	•	•
Actuation Options	Electric Spring Return	•	•	•	•	•	•	•	•	•
	Electronic Fail Safe		•		-				-	
	Pneumatic, low pressure			•		•	•	•	•	•
	Pneumatic bidirectional (Hi-Pr)									
	Pneumatic spring return (Hi-Pr)									
Notes	* Best used with supply water reset									

APPENDIX D: 3-WAY CONTROL VALVE SELECTION CRITERIA

Notes

* Best used with supply water reset from outdoor air temperature.
 ** A port specification
 *** A-port maximum operating differential pressure. Static close-off pressure may be higher. Maximum pressure for quiet service may be

**** Stem down to close ***** Stem up to close "Limited" = not available in large sizes

less.

APPENDIX D: 3-WAY CONTROL VALVE SELECTION CRITERIA (CONTINUED)

		Contro	ol Ball	Butt	erfly
		Threaded	Flanged		ent Seat
Attribute	Specification	VBN3	VBF3	VFF3	VFF6
	1/2" [DN15]	•			
	3/4" [DN20]	•			
	1" [DN25]	•			
	1-1/4" [DN32]	•			
	1-1/2" [DN40] 2" [DN50]	•		•	•
Pipe Size	2" [DN50] 2-1/2" [DN65]	•			
	3" [DN80]	-		•	•
	4" [DN100]		•	•	•
	5" [DN125]		•	•	•
	6" [DN150]		•	•	•
	Other (maximum size)			20" [D	N500]
	Sweat				
Pipe Fittings	NPT Internal Thread	•			
	Inverted Flare ANSI Flange		•	•	•
	ANSI 125/150		•		
Static Pressure	ANSI 250/300				
	Other	360 psi		250) psi
Media	Chilled Water	•	•	•	•
Media	Hot Water	•	•	•	•
Flow Capacity, Cv	Multiple ratings per pipe size	•	•		
	One rating/size above 1/2"			•	•
	Mixing A-B-AB porting Mixing A-AB-B porting	•	•	•	•
Valve Action	Diverting AB-B-A porting	•	0	•	•
	Diverting A-AB-B porting		0		•
	Equal Percentage				
A-port Flow	Modified Equal Percentage	•	•	•	•
Characteristic	Linear				
	Quick Open				
	Modified Equal Percentage Linear			•	•
B-port Flow	Linear Linear, Reduced Cv	•	•		
Characteristic	Total Constant Flow		-		
	Quick Open				
	High (60 psid minimum)		•	•	•
Close-off pressure***	Medium (30 psid minimum)	•		•	•
procedie	Varies with actuator				
Maximum	ANSI Class III (0.10% Cv max.)				
Maximum Seat	ANSI Class IV (0.01% Cv max.)	•	A-port	•	•
Leakage**	Bubble-tight design Other (see product data literature)		B-port	•	•
	High (50:1 minimum)	•	B-port •		
Rangeability	Medium* (15~50:1)	0			
	Low (under 15:1)			•	•
	Brass, plated brass, bronze	•			
Trim	Stainless Steel		•		
	Resilient materials			•	•
In-line	Cartridge				
Serviceability	Packing Rebuild	•	•		
	Electronic Modulating	•	•	•	•
	Tri-state floating	•	•	•	•
	Pulse Width Modulation				
	2-position low voltage	•	•	Lim	nited
Actuation Options	2-position line voltage	0	0	•	•
Actuation Options	Electric Spring Return	•	•	Lim	nited
	Electronic Fail Safe				
	Pneumatic, low pressure				nited
	Pneumatic bidirectional (Hi-Pr)			•	•
	Pneumatic spring return (Hi-Pr)			•	•

Notes

* Best used with supply water reset from outdoor air temperature.
 ** A port specification
 *** A-port maximum operating differential pressure. Static close-off pressure may be higher. Maximum pressure for quiet service may be

less.

**** Stem down to close ***** Stem up to close "Limited" = not available in large sizes

63-4527—01

APPENDIX E: DIRECT COUPLED ACTUATORS



Spring Return. Low Torque



Spring Return, High Torque



Non-Spring Return, Low Torque

Non-Spring Return, High Torque

DIRECT COUPLED ACTUATORS QUICK SELECTION GUIDE

Precise, reliable performance. Lasting value. Ease of installation. Everything you look for in directcoupled actuators hinges on quality. And quality engineering is what makes Honeywell's complete line of actuators the top performers in the industry. Our global engineering team designs and tests our direct-coupled actuators to exceed rigorous global standards — and to meet Honeywell's own demanding life testing.

But we don't stop there. Thanks to our continuous improvement process, Honeywell actuators are now easier than ever to install. You'll also benefit from consistent wiring regardless of signal type, common accessories and a simplified selection process.

Honeywell's complete line of building control products, including valves and actuators, are already proven in more than three million buildings worldwide. So when you need spring or nonspring return actuators for your damper and valve applications, specify Honeywell. We make precision easy.

EASY-TO-SELECT MODEL NUMBERS

MS and MN Families MS 75 10 A 2 ХХ Fail Safe Mode **System Controlled Numbers** • MS Spring Return • MN Non-Spring Return **Auxiliary Switches** • **0** No Internal Switches **Input Signal Type** • 2 Two Internal Switches • 41 Two-Position, 100-250 Vac • 61 Floating, 24 Vac/dc Feedback • 75 Modulating/Floating, 24 Vac/dc • 1 No Feedback • 81 Two-Position, 24 Vac/dc 2 Voltage Feedback **Application Type** Torque • 03 Nm = 27 in-lb A Standard Model • 05 Nm = 44 in-lb • H Enhanced Model • 10 Nm = 88 in-lb • W Model with Whips Cable • 20 Nm = 175 in-lb • 34 Nm = 300 in-lb ML Family ML 61 61 B 2 XXX System Controlled Numbers Fail Safe Mode • ML Non-Spring Return Declutch **Input Signal Type** • 1 Standard • 2 Includes Declutch Function • 61 Floating, 24 Vac 71 Modulating, 24 Vac **Feedback & Conduit** • A Feedback w/Accessory Torque B Standard • 61 (4 Nm) = 35 in-lb • C Feedback w/Accessory and • 74 (8 Nm) = 70 in-lb

Cover w/Conduit Connections

D Cover w/Conduit Connections

- Improve Installation Time
- · Self-centering shaft adapter provides mounting flexibility and greater clamping force.
- Common wiring among families for every signal saves installation time.

Decrease Material Cost

· Detachable access cover allows direct wiring without a junction box.

Reduce Inventory

· Signal mode switch adapts models to twoposition, floating (tri-state), or modulating (proportional) applications.

Increase Control and Accuracy

· More than 200 reposition steps for modulating models provide precise control.

Increased Flexibility

· Select models are available with or without three foot actuator whips cable.

> YEAR LIMITED



APPENDIX E: DIRECT COUPLED ACTUATORS (CONTINUED)

SPRING RETURN

				Runni	ng Time	Power	Supply			Co	ntrol Input/O	utput		Auxiliary	Knob
	Order Specification Number (without whips)	Order Specification Number (with whips)	Damper Area (4.5 lb-in/ sq. ft.)	Drive (sec)	Spring Return (sec)	24 Vac/dc	120-230 Vac	VA Rating (Running)	On/Off	0/2-10 Vdc, Floating	3 kOhm NTC, 3-Position	Feedback (0/2-10 Vdc)	Adj. Zero and Span	SPDT Auxiliary Switches	IMPP*
	SO3 Series (3 Nm, 27	lb-in)													
	MS8103A1030		6	45	<25	•		7	•					0	
	MS8103A1130		6	45	<25	•		7	•					1	
	MS4103A1030		6	45	<25		•	10	•					0	
The same of	MS4103A1130		6	45	<25		•	10	•					1	
	MS7503A2030		6	90	<25	•		7		•		•		0	
	MS7503A2130		6	90	<25	•		7		•		•		1	
	MS7403A2030		6	90	<25	•		7		•	•	•		0	•
0	SO5 Series (5 Nm, 44	lb-in)													
	MS8105A1030	MS8105W1030	10	45	<25	•		8	•					0	
	MS8105A1130	MS8105W1130	10	45	<25	•		8	•					1	
	MS4105A1030		10	45	<25		•	11	•					0	
	MS4105A1130		10	45	<25		•	11	•					1	
	MS7505A2030	MS7505W2030	10	90	<25	•		8		•		•		0	
	MS7505A2130	MS7505W2130	10	90	<25	•		8		•		•		1	
	MS7405A2030		10	90	<25	•		8		•	•	•		0	•
	S10 Series (10 Nm, 88														
do.	MS8110A1008	MS8110W1008	20	45	<25	•		30	•					0	
NOT	MS8110A1206	MS8110W1206	20	45	<25	•		30	•					2	
	MS4110A1002		20	45	<25		•	45	•					0	
n . 10 -30-	MS4110A1200		20	45	<25		•	45	•					2	
ALL S IN	MS7510A2008	MS7510W2008	20	90	<25	•		14		•		•		0	
200	MS7510A2206	MS7510W2206	20	90	<25	•		14		•		•		2	
	MS7510H2209		20	90	<25	٠		14		•		•	•	2	
· ·	S20 Series (20 Nm, 17														
	MS8120A1007	MS8120W1007	39	45	<25	•		40	•					0	
	MS8120A1205	MS8120W1205	39	45	<25	•		40	•					2	
	MS4120A1001		39	45	<25		•	60	•					0	
	MS4120A1209		39	45	<25		•	60	•					2	
	MS7520A2007	MS7520W2007	39	90	<25	•		16		•		•		0	
	MS7520A2205	MS7520W2205	39	90	<25	•		16		•		•		2	
	MS7520H2208		39	90	<25	•		16		•		•	•	2	

NON-SPRING RETURN

					Power S	Supply			Control	Input/Outpu	t	
	Order Specification Number (without whips)	Order Specification Number (with whips)	Damper Area (4.5 lb-in/ sq. ft.)	Running Time	24 Vac/dc	24 Vac	VA Rating (Running)	On/Off, Floating	0/2-10 Vdc	2-10 Vdc	Feedback (0/2-10 Vdc)	SPDT Auxiliary Switches
all and	NO5 Series (5 Nm, 44 lb	i-in)										
×21	MN6105A1011	MN6105W1011	10	90	•		5	•				0
and a second	MN6105A1201		10	90	•		5	•				2
	MN7505A2001	MN7505W2001	10	90	•		5	•	•		•	0
A GF	MN7505A2209		10	90	•		5	•	•		•	2
The last	N10 Series (10 Nm, 88 I	lb-in)										
	MN6110A1003		20	90	•		5	•				0
	MN6110A1201		20	90	•		5	•				2
	MN7510A2001		20	90	•		5	•	•		•	0
	MN7510A2209		20	90	•		5	•	•		•	2
	N20 Series (20 Nm, 175	i lb-in)									,	
	MN6120A1002		39	90	•		6	•				0
1 miles	MN6120A1200		39	90	•		6	•				2
M.C.	MN7220A2007		39	90	•		6		•		•	0
- M.	MN7220A2205		39	90	•		6		•		•	2
100	N34 Series (34 Nm, 300	lb-in)										
() <u> </u>	MN6134A1003		67	90	•		9	•				0
	MN7234A2008		67	90	•		8		•		•	0
	ML6161/7161 (4 Nm, 35	5 lb-in)										
	ML6161A2009		8	90		•	1.8	•			w/ accessory	0
	ML6161A2017		8	420		•	1.8	•			w/ accessory	0
	ML6161A2025		8	180		•	1.8	•			w/ accessory	0
12	ML6161B2024		8	90		•	1.8	•				0
also for	MS6161B2032		8	420		•	1.8	•				0
	ML6161B2073		8	180		•	1.8	•				0
	ML6161C2007		8	90		•	1.8	•			w/ accessory	0
	ML6161D2006		8	90		•	1.8	•				0
	ML7161A2008		8	90		•	5.4			•		0
	ML6174/7174 (8 Nm, 70	J lb-in)	10				<u> </u>	1				
	ML6174A2002		16	90		•	2.4	•			w/ accessory	0
	ML6174A2010		16 16	180		•	2.4	•			w/ accessory	0
	ML6174B2019			90		•	2.4	•				0
0	ML6174B2035		16	420		•	2.4	-				0
	ML6174D2009		16	90		•	2.4	•				0
0	ML6174E2008		16	90		•	2.4	•				0
	ML7174A2001		16	90 90		•	5.4	•				0
	ML7174E2007		16	90		•	5.4	•				0

APPENDIX F: 10K NTC TYPE II SENSORS

	OS No.	Type	Description
Contraction of the second	C7021B2005	Duct Mount	6" duct w/ wiring enclosure
	C7021B2013	Duct Mount	12" duct w/ wiring enclosure
	C7021C2003	Duct Mount	18" duct w/ wiring enclosure
	C7021J2007	Duct Mount	12' duct averaging w/ wiring enclosure
	C7021R2000	Duct Mount	12' duct averaging flexible copper
U	C7021R2018	Duct Mount	24' duct averaging flexible copper
-	C7776A1006	Duct Mount	6" duct probe with flange, 8.5 in stranded wire
	C7776A1040	Duct Mount	6" duct probe with flange, 6 ft plenum cable
	C7021P2004	Wall Mount	Small metal button sensor

APPENDIX F: 10K NTC TYPE II SENSORS (CONTINUED)

	OS No.	Туре	Description
Honeywell	C7021D2001	Water	Pipe sensor with wiring enclosure, use well 50001774-001
Kongywei	C7021K2005	Water	Strap-on pipe sensor with wiring enclosure
	C7021F2009	Outdoor	Outdoor weatherproof, connects to 1/2" conduit, 10K Ohms NTC Type II
	C7021N2001	Water / Air	Probe Sensor with 6' Lead
•	C7772F1004	Wall Mount	Wall Flush Mount Temperature Sensor, without logo
Harrywell	C7772F1012	Wall Mount	Wall Flush Mount Temperature Sensor, with logo
alantage west	TB-WALL-1014	Wall Mount	Wall sensor
. 💽	TB-WALLOVR-1014	Wall Mount	Wall sensor with override

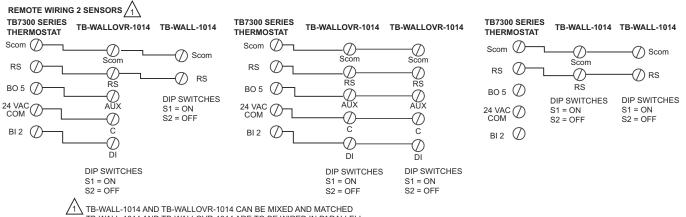
APPENDIX G: TB-WALL SENSOR WIRING & DIP SWITCH SETTINGS FOR TB7200 AND TB7300 SERIES THERMOSTATS

If LED indicator is desired at the TB-WALLOVR-1014:

- 1. Set the Aux Cont installer parameter (which controls BO5) to option 2, Auxiliary NC.
- 2. Install a jumper across the BO5 terminal and 24 Vac Hot.



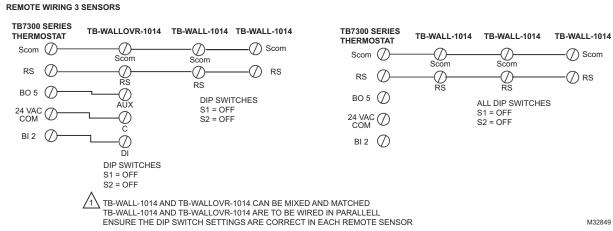
Wiring example of single remote wall mounted room sensor.



TB-WALL-1014 AND TB-WALLOVR-1014 ARE TO BE WIRED IN PARALLELL ENSURE THE DIP SWITCH SETTINGS ARE CORRECT IN EACH REMOTE SENSOR

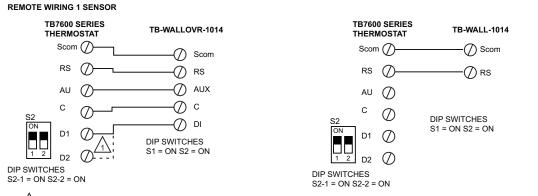
M32848

Wiring examples of two remote wall mounted room sensors for averaging applications.



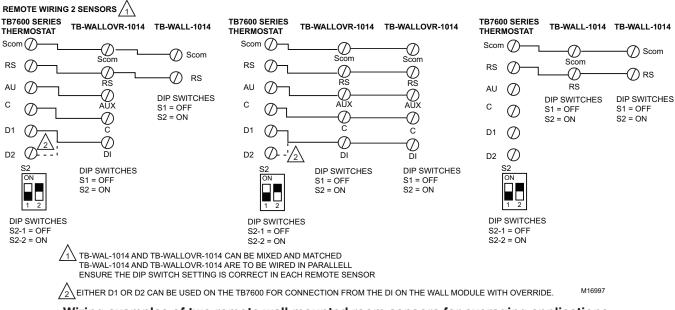
Wiring examples of three remote wall mounted room sensors for averaging applications.

APPENDIX G: TB-WALL SENSOR WIRING & DIP SWITCH SETTINGS FOR TB7600 SERIES THERMOSTATS



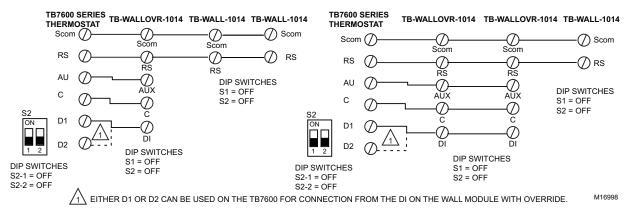
1 EITHER DI OR D2 CAN BE USED ON THE TB7600 FOR CONNECTION FROM THE DI ON THE WALL MODULE WITH OVERRIDE.





Wiring examples of two remote wall mounted room sensors for averaging applications.

REMOTE WIRING 3 SENSORS



Wiring examples of three remote wall mounted room sensors for averaging applications.

Automation and Control Solutions Honeywell International Inc. 1985 Douglas Drive North

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