

Quick Setup Guide

Invita[®] WiFi Thermostat

For Use With

Conventional systems:

- Up to 2-stage heating, 2-stage cooling, fan and 2 accessories

Heat pump & dual fuel systems:

- Up to 4-stage heating, 2-stage cooling, fan, reversing valve and 1 accessory

Accessory options:

- Humidifier, dehumidifier, HRV/ERV ventilator

Need more information?

- Refer to the User Brochure for information on using the thermostat and app
- Refer to the Voice Control Manual for details on voice control features
- Refer to the Operation Manual for in-depth installation and operation details

All literature is available from:
tekmarControls.com/Invita

Scan to open
Invita webpage



HVAC
Interface Module

Invita
WiFi Thermostat

Wall Trim Plate

Package Contents

- Invita WiFi Thermostat 564 or 564B
- HVAC Interface Module
- 4 drywall anchors
- 4 wood screws
- 2 self tapping screws
- Wall trim plate

tekmar[®]
A WATTS Brand

This Quick Setup Guide is intended for use by HVAC professionals. For in-depth operation and troubleshooting details, download the operation manual 564_D from the Invita WiFi Thermostat 564 product page on tekmarControls.com. For assistance, contact your local tekmar representative: www.tekmarControls.com/company/contact-representative.html. Or call tekmar customer service at 1-800-438-3903.

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Important Safety Information

It is the installer’s responsibility to ensure that this thermostat is safely installed according to all applicable codes and standards. tekmar is not responsible for damages resulting from improper installation and/or maintenance.

WARNING

This symbol identifies hazards which, if not avoided, could result in death or serious injury.

CAUTION

This symbol identifies hazards which, if not avoided, could result in minor or moderate injury.

NOTICE

This symbol identifies practices, actions, or failure to act which could result in property damage or damage to the equipment.



This is a safety-alert symbol. The safety alert symbol is shown alone or used with a signal word (DANGER, WARNING, or CAUTION), a pictorial and/or a safety message to identify hazards.



When you see this symbol alone or with a signal word on your equipment or in this Manual, be alert to the potential for death or serious personal injury.

This pictorial alerts you to electricity, electrocution, and shock hazards.

WARNING



Read Manual and all product labels BEFORE using the equipment. Do not use unless you know the safe and proper operation of this equipment. Keep this Manual available for easy access by all users. Replacement Manuals are available at tekmarControls.com

NOTICE

Do not attempt to service the thermostat. There are no user serviceable parts inside the thermostat. Attempting to do so voids warranty.

⚠ WARNING

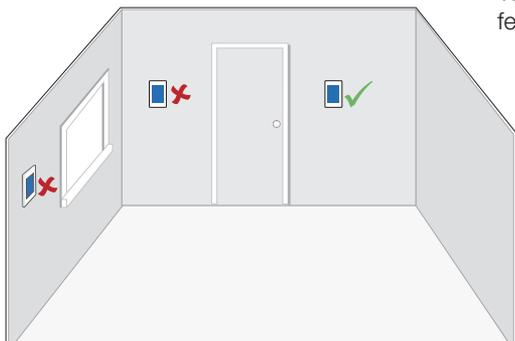
- Improper installation and operation of this thermostat could result in damage to the equipment and possibly even personal injury or death.
- This thermostat is not intended for use as a primary limit control. Other controls that are intended and certified as safety limits must be placed into the control circuit.

NOTICE

Thermostat Location

Consider the following:

- Interior wall. Keep dry. Avoid potential leakage onto the control.
- No draft, direct sun, or other cause for inaccurate temperature readings.
- Away from equipment, appliances, or other sources of electrical interference.
- Approximately 5 feet (1.5 m) off the finished floor.
- The maximum length of wire is 500 feet (150 m).



Installation

⚠ WARNING



Ensure power to connecting equipment is off. To prevent the risk of personal injury and/or death, make sure power is not applied to the thermostat or HVAC Interface Module until they are fully installed and ready for configuration. All work must be done with power to the circuit being worked on turned off.

NOTICE

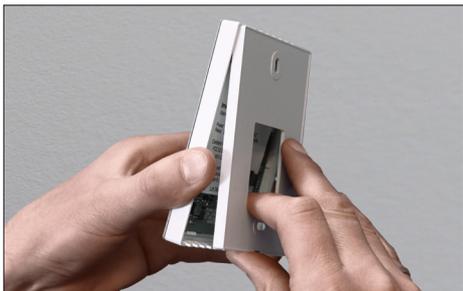
Please be aware local codes may require this thermostat to be installed or connected by an electrician.

1. Remove the old thermostat

If more than 2 wires are present, identify the Red & Common wires for use when connecting the Invita WiFi Thermostat. Additional wires should be secured in a way that prevents them from touching the circuit board or terminals on the Invita after the R & C wires are connected.

2. Mount Invita base to wall

Remove the back plate from the thermostat.



Secure the Invita thermostat back plate to a 2 x 4" electrical box with machine screws or to drywall using wood screws with wall anchors.

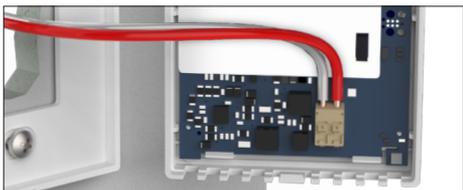


If the wall has damage extending beyond the width of the Invita WiFi Thermostat, place the wall trim plate behind the back plate.



3. Wiring the Invita WiFi Thermostat

Connect the 2 wires from the old thermostat to the terminals on the back of the Invita WiFi Thermostat. This connection is not polarity sensitive.



4. Attach the thermostat to back plate

Align the 2 notches at the top of the base plate with the holes on the top of the thermostat then rotate on the hinge point down to close.



5. Mounting the HVAC Interface Module

Locate the HVAC Interface Module so that it can connect to the other end of the existing wire from the thermostat. After removing the cover, secure the HVAC Interface Module to the wall, the HVAC equipment chassis or HVAC plenum using the holes at the top and bottom of the module. Wiring to the module enters from opening on the sides or the back. Refer to the diagrams on pages 5 to 9 for wiring details.



6. Replace the Cover



Push the HVAC Interface Module Cover towards the base. Top and bottom clips hold the cover in place.

Equipment Connections

This illustration shows various equipment connected to the HVAC Interface Module. Other equipment may be included in your application.

Conventional systems:

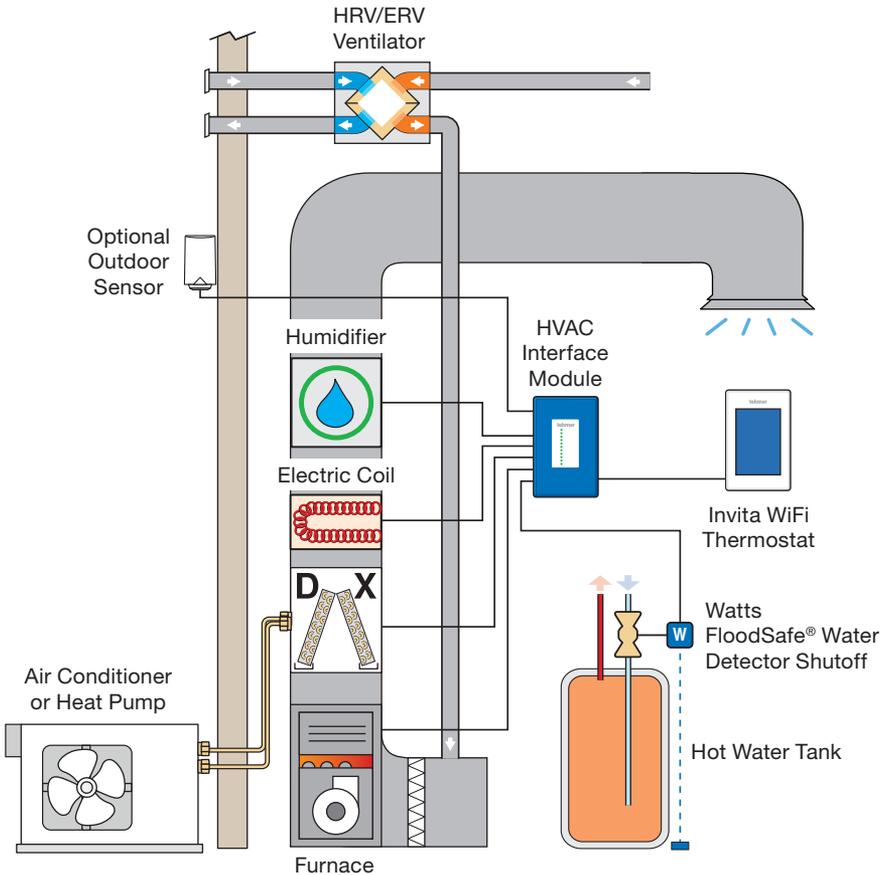
- Up to 2-stage heating, 2-stage cooling, fan and 2 accessories

Heat pump & dual fuel systems:

- Up to 4-stage heating, 2-stage cooling, fan, reversing valve and 1 accessory

Accessory options:

- Humidifier, dehumidifier, HRV/ERV ventilator



Wiring the HVAC Interface Module

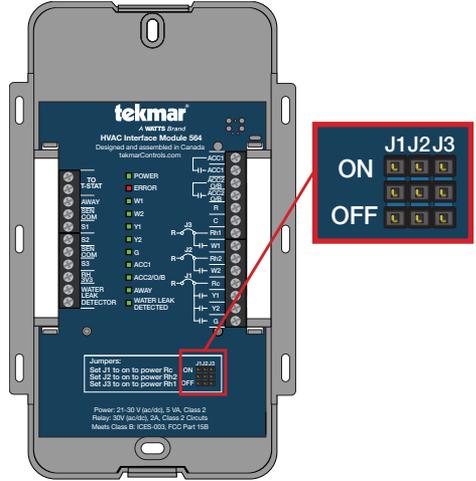
⚠ WARNING



Ensure power to connecting equipment is off. To prevent the risk of personal injury and/or death, make sure power is not applied to the thermostat or HVAC Interface Module until they are fully installed and ready for configuration. All work must be done with power to the circuit being worked on turned off.

The HVAC Interface Module includes three relay power jumper connectors. These are used to provide power between terminals when necessary.

- Set Jumper J1 to On to connect power R to the Rc terminal.
- Set Jumper J2 to On to connect power R to the Rh2 wiring terminal.
- Set Jumper J3 to On connects power R to the Rh1 wiring terminal.
- Set the jumper to off to disconnect the power from Rh1, Rh2, or Rc respectively.



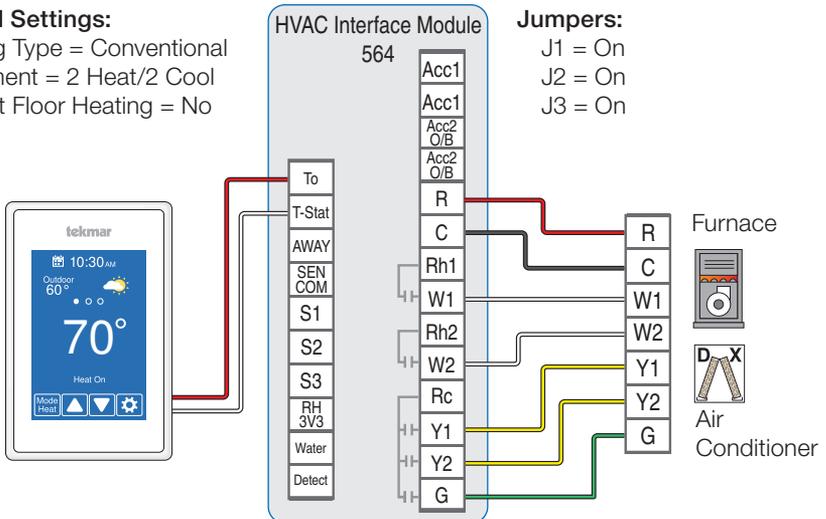
Up to 2-Stage Furnace and 2-Stage Air Conditioner

Essential Settings:

Heating Type = Conventional
 Equipment = 2 Heat/2 Cool
 Radiant Floor Heating = No

Jumpers:

J1 = On
 J2 = On
 J3 = On

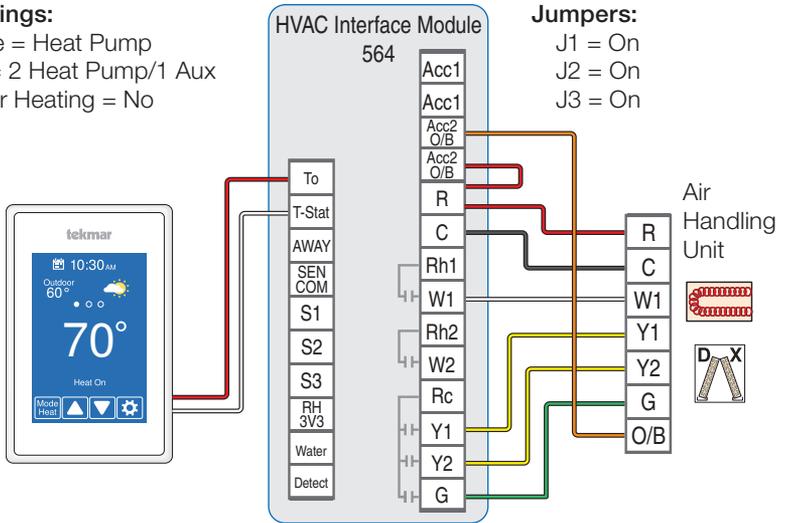


Up to 2-Stage Heat Pump with Auxiliary Heat

The thermostat operates high cost electric resistance heat when the heat pump is unable to meet the building heating load.

Essential Settings:

Heating Type = Heat Pump
 Equipment = 2 Heat Pump/1 Aux
 Radiant Floor Heating = No

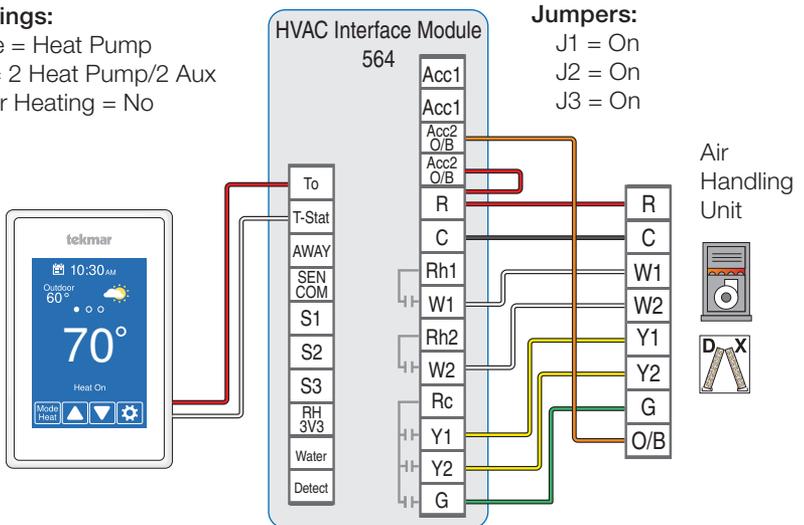


Up to 2-Stage Heat Pump with 2-Stage Dual Fuel

The thermostat operates the heat pump when the outdoor air temperature is above the balance point setting and switches to the furnace when below.

Essential Settings:

Heating Type = Heat Pump
 Equipment = 2 Heat Pump/2 Aux
 Radiant Floor Heating = No



Dehumidification using a DX Coil

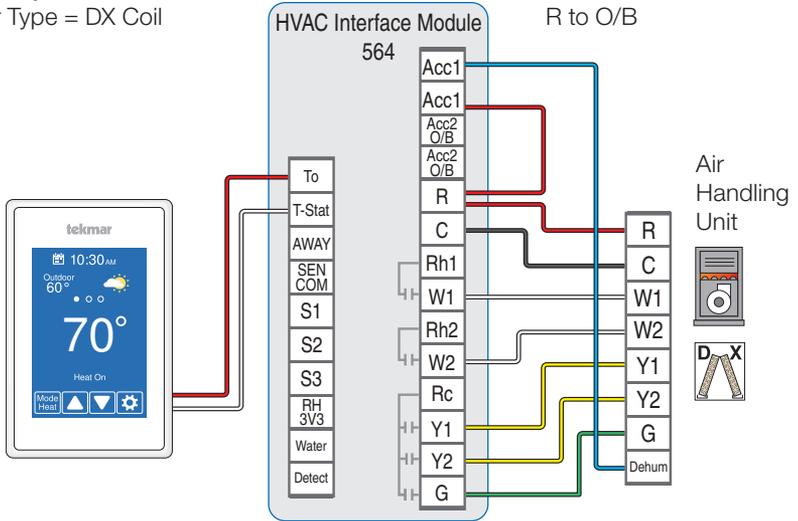
The thermostat operates the cooling system and runs the system fan at low speed to dehumidify the air.

Essential Settings:

Accessory Relay 1 or 2 = Dehumidifier
Dehumidifier Type = DX Coil

External Jumper Wires:

R to Acc1
R to O/B

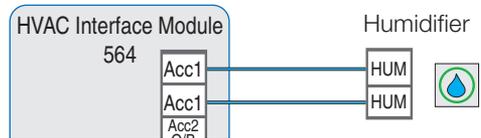


Humidifier

The thermostat operates a humidifier to increase relative humidity.

Essential Settings:

Accessory Relay 1 or 2 = Humidifier

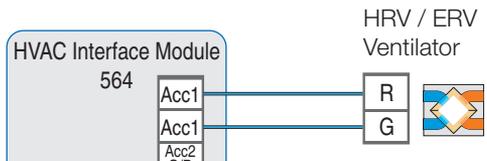


HRV/ERV Ventilator

The Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV) operates to improve indoor air quality and recovers heat from exhaust air.

Essential Settings:

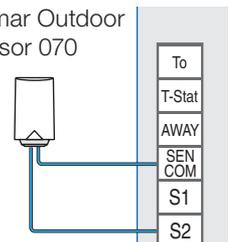
Accessory Relay 1 = Ventilation



Outdoor Sensor

- Installing an outdoor sensor provides more accurate outdoor temperature readings compared to using the weather information from the internet.
- Outdoor temperature is displayed on home screen.
- Used to enable heat pump dual fuel switchover, warm weather shut down, and cold weather shut down.

tekmar Outdoor Sensor 070

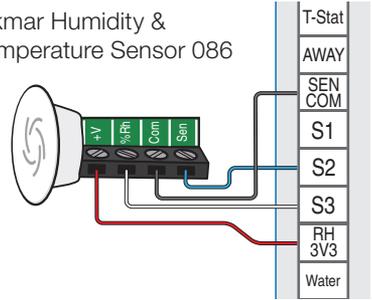


Room Sensor

When the location of the thermostat is not ideal for accurate temperature and humidity measurement, an optional room sensor can be installed in a better location. The 086 mounts flush to a wall, blending in with the room decor.

- Remotely measure the temperature and relative humidity
- The Invita WiFi Thermostat provides the option to disable the internal temperature and relative humidity sensor, and use the external sensor instead.

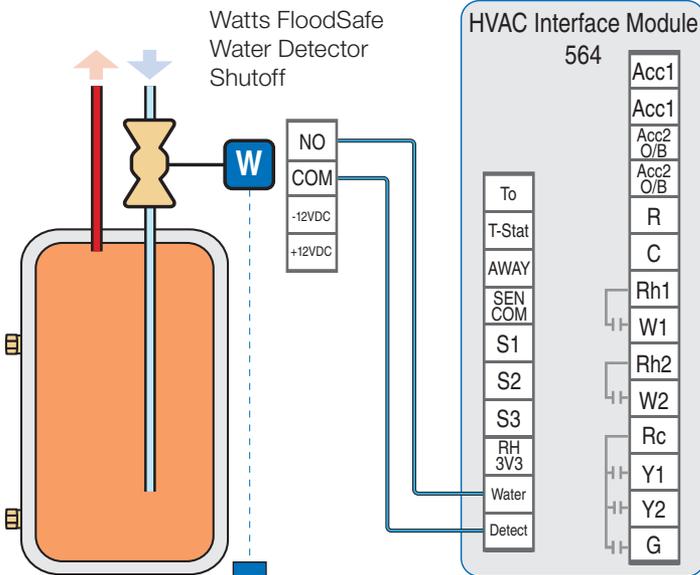
tekmar Humidity & Temperature Sensor 086



Watts FloodSafe® Water Detector Shutoff

The Watts FloodSafe Water Detector Shutoff LFWDS prevents catastrophic water damage in the event of a water heater leak.

The thermostat provides an email notification in the event that the FloodSafe Water Detector Shutoff LFWDS detects a water and shuts off the supply line to the water heater.



Startup

⚠ WARNING

To prevent the risk of personal injury and/or death, make sure power is not applied to the thermostat or HVAC Interface Module until they are fully installed and ready for configuration. All work must be done with power to the circuit being worked on turned off.

Restore power to the connected equipment. Once energized, the Invita WiFi Thermostat will display the home screen.

Thermostat Settings

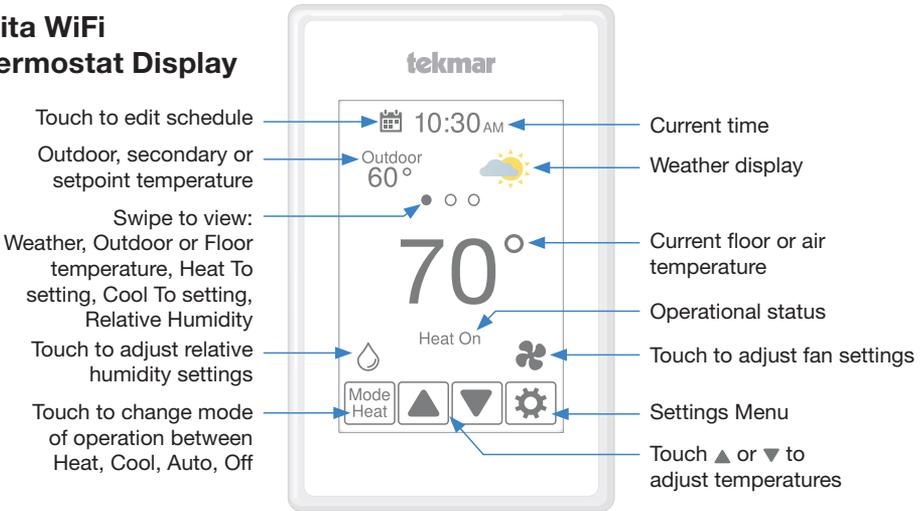
Use the touch screen display to configure the Invita WiFi Thermostat settings. Some display items such as the time and temperature offer adjustment access from the home screen. Other settings are accessed through the Settings button on the lower right of the home screen.

Select the appropriate settings in the setup menu to match your equipment configuration. Some items are grayed out until a related setting is changed.

Step-by-step instructions for connecting to WiFi, downloading the app and adjusting other common settings are included in the User Brochure.

For detailed information on thermostat operation, refer to the operation manual available from the Invita WiFi Thermostat 564 product page: tekmarControls.com/Invita.

Invita WiFi Thermostat Display



Symbols



The fan is on



The dehumidifier is on



Ok setting change



The humidifier is on



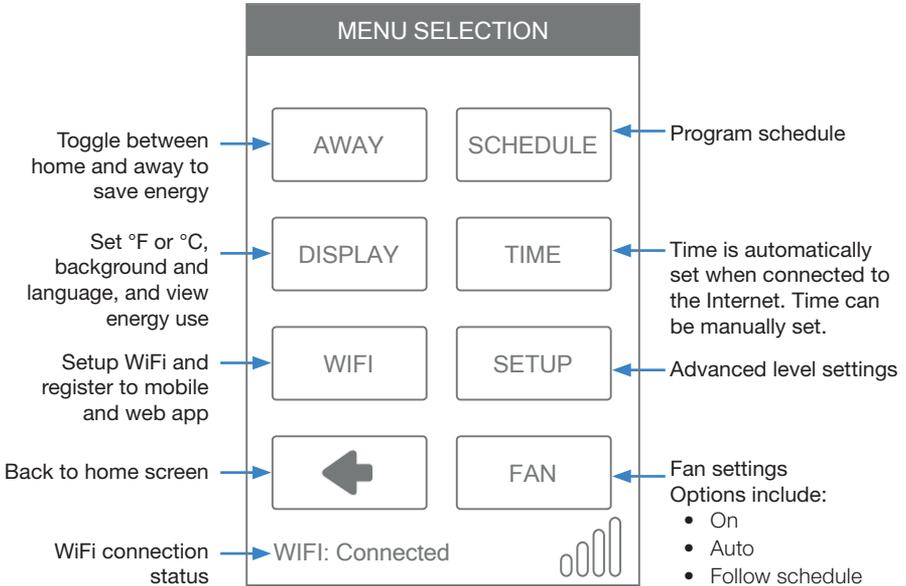
The info button provides a description of the setting



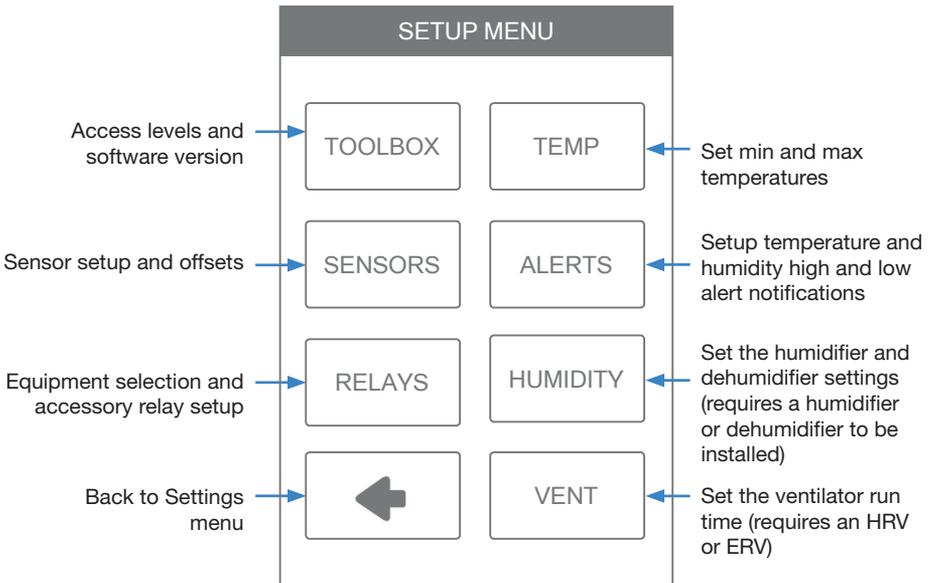
Cancel setting change

Settings menu

Press the  button to enter the settings menu



Setup menu



RELAYS

Heating Type: Conventional **1**

Equipment: 1 Heat/1 Cool **2**

Radiant Floor Heating: No **3**

Heat 2 Differential: 2.0 °F **4**

Heat 2 Time Delay: 1 min **5**

Heat 3 Differential: 2.5 °F **6**

RELAYS 2

Heat 3 Time Delay: 1 min **7**

Heat 4 Differential: 3.0 °F **8**

Heat 4 Time Delay: 1 min **9**

Cool 2 Differential: 2.0 °F **10**

Cool 2 Time Delay: 1 min **11**

Y Min Run Time: 2:00 min **12**

RELAYS 3

Y Min Off Time: 5:00 min **13**

Dual Fuel: Off **14**

Accessory Relay 1: Off **15**

Accessory Relay 2: Off **16**

HP Reversing Valve: O **17**

Fan Relay: G only **18**

RELAYS 4

Fan with HRV/ERV: Off **19**

Humidifier Type: Steam **20**

Window Protection: Off **21**

Window Quality: 2-pane average **22**

Dehumidifier Type: DX Coil **23**

Heat-Cool Time Interlock: 10 min **24**

← ▲ ▼

Relay menu

The Relay menu determines how the thermostat operates the mechanical equipment.

- Press the  button to enter the settings menu
- Press the SETUP button
- Press the RELAYS button

1	Select conventional or heat pump systems.
2	Select the number of heating and cooling stages.
3	Select if operating a radiant floor.
4, 6, 8, 10	Select the temperature differentials between stages.
5, 7, 9, 11	Select the time delays between stages.
12, 13	Select the air conditioner or heat pump compressor min off and min run times.
14	Select if operating a dual fuel system.
15, 16	Select accessory relay options: Humidifier, Dehumidifier, HRV/ERV
17	Select the heat pump reversing valve position
18, 19	Select the system fan options.
20, 23	Select humidifier and dehumidifier options.
21, 22	Select window frost protection options. This prevents moisture and frost on windows in the winter.
24	Select the time to switch between heating to cooling and vice versa

Menu Map

HOME



Shortcut to
Schedule Settings

00:00

Shortcut to
Time Settings



Shortcut to
Fan Settings



Shortcut to
Humidity Settings



Mode

Heat
Cool
Auto Heat/Cool
Off
Emergency Heat



Adjust Temperature

Heat To
Cool To
Hold
Save to Schedule



At Home
Away



Temperature units: °F/°C
Energy Use: Monthly/Daily
Brightness - Active: %
Brightness - Inactive: %
Theme:
Light/Blue/Night/Latte/Espreso
Language:
English/Español/Français
Clean Screen: Yes/No
Inactive Time Display: Off/On
Inactive Humidity Display: Off/On
Inactive Outdoor Display: Off/On



Connect Tutorial:
(Setup Wizard)
WiFi: Off/On
Network SSID
ZIP/Postal
Registration code



Wake: { select
Leave: times &
Return: temperatures
Sleep:
Early Start: Off/On
Schedule: Off/On
New Schedule:
Mon, Tue, Wed, Thur,
Fri, Sat, Sun



Time format: 12 hour/24 hour
Time Source: Automatic/Manual
Time Zone:
Hawaii
Alaska
Pacific
Mountain
Central
Eastern
Atlantic
Newfoundland
Daylight Savings: Off/On



Setup



On
Auto
Follow Schedule
Setup Fan Schedule

Toolbox:

Error: (Displays info only if error present)
Access Level: User/Installer
Status: Operational Status Readout
Software Version: (Displays version code)
Load Defaults: Yes/No
Calibrate Touchscreen: (Use to improve alignment)

Temp:

Heat to Away: Off/On>Select Temp
Heat to Min Limit: Off/On>Select Temp
Heat to Max Limit: Off/On>Select Temp
Cool to Away: Off/On>Select Temp
Cool to Min Limit: Off/On>Select Temp
Cool to Max Limit: Off/On>Select Temp
Floor Minimum Wake: Off/On
Floor Minimum Leave: Off/On
Floor Minimum Return: Off/On
Floor Minimum Sleep: Off/On
Floor Minimum Away: Off/On
Floor Maximum: Select Max temp
Warm Weather Shut Down (WWSD): Off/On>Select Temp
Cold Weather Cut Out (CWC0): Off/On>Select Temp
Heat Pump Balance Point: Off/On>Select Temp

Sensors:

Sensor 1: Off/Room/Floor
Sensor 2: Off/Room/Floor/Outdoor
Sensor 3: Off/Room/Floor/Humidity
Internal Room Sensor: Off/On
Internal Humidity Sensor: Off/On
Room Offset: Off/On>(Select Offset)
Floor Offset: Off/On>(Select Offset)
Humidity Offset: Off/On>(Select Offset)

Alerts:

Room Hot Warning: Off/On>(Select Temperature)
Room Cold Warning: Off/On>(Select Temperature)
Air Filter: Off/On>(Select Hours)
UV Lamp Change: Off/On>(Select Hours)
Low Humidity Warning: Off/On>(Select %)
High Humidity Warning: Off/On>(Select %)
Aux Heat Run Time Warning: Off/On>(Select Hours)

Relays:

Heating Type: Conventional/Heat Pump
Equipment: (Changes depending on heating type setting)
Radiant Floor Heating: Yes/No
Heat 2 Differential: (Select differential)
Heat 2 Time Delay: (Select time)
Heat 3 Differential: (Select differential)
Heat 3 Time Delay: (Select time)
Heat 4 Differential: (Select differential)
Heat 4 Time Delay: (Select time)
Cool 2 Differential: (Select differential)
Cool 2 Time Delay: (Select time)
Y Min Run Time: (Select time)
Y Min Off Time: (Select time)
Dual Fuel: Off/On
Accessory Relay 1: Off/Humidifier/Dehumidifier/Ventilation/HP Loop Valve
Accessory Relay 2: Off/Humidifier/Dehumidifier
HP Reversing Valve: 0/B
Fan Relay: G only/With Y/With Y and W1/With Y and W2/With Y, W1 and W2
Fan with HRV/ERV: Off/On
Humidifier Type: Evaporative/Steam/Stand Alone
Window Protection: Off/On
Window Quality: 1/2/3 Pane Poor/Average/Better
Dehumidifier Type: DX Coil/Stand Alone
Heat-Cool Time Interlock: (Select time)

Humidity:

Humidify To: %
Dehumidify To: %

Vent:

Wake: On/45min/30min/15min/Off
Leave: On/45min/30min/15min/Off
Return: On/45min/30min/15min/Off
Sleep: On/45min/30min/15min/Off

Technical Data

Invita™ WiFi Thermostat 564	
Literature	Submittal, Quick Setup Guide, Operation Manual, User Manual, Voice Command Manual, Job Record
Packaged weight	1.3 lb. (600 g)
Dimensions	Display: 4-1/2" H x 2-3/4" W x 9/16" D (114 x 70 x 14 mm) HVAC Interface Module: 7-7/16" H x 4-7/16" W x 1-1/4" D (188 x 112 x 31 mm)
Display	3.5" color touchscreen
Enclosure	Display: White or Black PVC plastic, NEMA type 1 HVAC Interface Module: Blue PVC plastic, NEMA type 1
Approvals	Meets Class B: ICES & FCC Part 15
Ambient conditions	Display: Indoor use only, -4 to 122°F (-20 to 50°C), RH ≤90% non-condensing HVAC Interface Module: -40 to 122°F (-40 to 50°C), RH ≤90% non-condensing, outdoor use requires mounting in a NEMA 3 enclosure
Environmental	Do not use in presence of ammonia (animal barns).
Power supply	21-30 V (ac), 6 VA, Class 2
Relays	30 V (ac) 2 A, Class 2 Circuits
Humidity sensor	0 to 90% ±4% RH
RH Output	3.3 V (dc) humidity sensor power, 3.0 mA maximum
Temperature sensor	NTC thermistor, 10 kΩ @ 77°F (25°C ±0.2°C) β=3892
Optional sensors	tekmar type # 070, 072, 073, 076, 077, 079, 084, 086, 087
Communications	WiFi 802.11n, 2.4 GHz, WPA2 encryption
Mobile app	Apple iOS 11 or higher, Android 5 or higher
Languages	English/Français/Español
Warranty	3 Year Limited Warranty

Voice Controls

The Invita WiFi Thermostat includes the capability to connect to the Amazon Alexa and Google Home mobile apps.

In order to use these features, the thermostat must be first connected to the Internet and be registered to a mobile app account. For details on setting up and using the voice control features of your Invita WiFi Thermostat, refer to the Voice Control Manual, available from tekmarControls.com.



Amazon, Alexa and all related logos are trademarks of Amazon.com, Inc. or its affiliates. Google, Google Home, Android, Google Play and other related marks and logos are trademarks of Google LLC.

Warranty

Limited Warranty *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and/or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty

are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and/or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

Product Warranty Return Procedure All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.

Need help? Go to our website or contact us.

tekmarControls.com | tekmar.customerservice@wattswater.com | 1-800-438-3903



A WATTS Brand

All specifications are subject to change without notice.

Tel: 1-800-438-3903 • Fax: (250) 984-0815
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