eControls

Ver4.09K Jan 2023

The ZTWD thermostat controls the heating and cooling system and the distribution of heating and cooling to the upstairs and downstairs zones to provide a uniformly comfortable home.

The ZTWD thermostat is installed in the downstairs zone (living space), a temperature sensor is installed in the upstairs zone (sleeping space) and two modulating dampers are installed in the duct work to control the distribution of heating and cooling to the downstairs and upstairs zones. Some installations may have two sensors - one in the bedroom hallway and one in the master bedroom.

During heating and cooling calls, the thermostat checks the temperature at the sensor and the temperature at the thermostat every 2 minutes and if there is a 2 degree or more difference, the thermostat automatically directs more heating or cooling to the space that needs it for a uniformly comfortable home.

Or, you can manually distribute more heating or cooling to the upstairs or downstairs as desired.

Patent US 10,520,212 B1

Understanding Airflow

| **Uniform Comfort**	**Upstairs Comfort**	**Downstairs Comfort**	**Night Comfort Option**
Thermostat automatically adjusts the distribution of heating and cooling to the upstairs and downstairs to keep the spaces within 2 degrees of each other. Automatic Operation - Factory Default.	Homeowner directs more heating or cooling to the upstairs zone and less to the unoccupied downstairs. The upstairs temperature sensor is used to control heating and cooling calls. Manual Operation.	Homeowner directs more heating or cooling to the downstairs zone and less to the unoccupied upstairs. The thermostat is used to control heating and cooling calls. Manual Operation.	This option improves comfort and energy savings in two story homes where the bedrooms are located upstairs. Thermostat automatically directs 30% more heating or cooling to the upstairs sleeping zone at night and uses the upstairs sensor to control heating and cooling calls. Factory Set to Off.

What's Inside

UNDERSTANDING YOUR THERMOSTAT

1 Set To is the temperature you want your space to be. Use the ⌃ or ⌄ key to adjust.

2 Displays the system mode - Off, Heat or Cool. To change, press the SYSTEM key.

3 Displays the fan mode - Auto or On. To change, press the FAN key. Auto is typically used.

4 Displays the room temperature for the downstairs zone (Living) or upstairs zone (Sleeping). Press this area to display the Sleeping or Living temperature.

5 Displays the thermostat mode - Hold or Schedule. To change, press the MODE key.

6 Displays the amount of heating or cooling being distributed to the downstairs zone (Living) and upstairs zone (Sleeping). Press this area to select Uniform Comfort, Upstairs Comfort or Downstairs Comfort.

7 Displays the time and day of the week. To change, press the area where the Time is displayed.

8 Press the MENU key to access homeowner options.
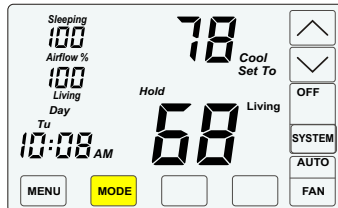
9 WiFi displays when the WiFi is linked.
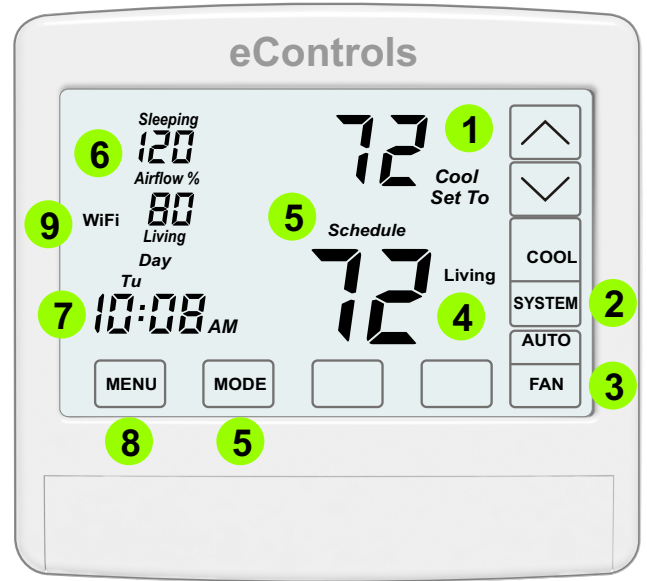
HEATING and COOLING OPERAITON

Select HOLD or SCHEDULE Mode

The thermostat operates in Hold or Schedule Mode. Press the MODE key to select Hold or Schedule.
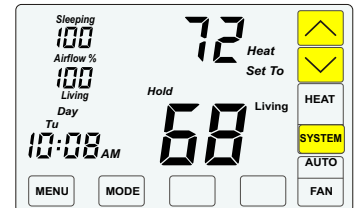
Hold-Thermostat uses the Set To temperatures set by the homeowner.

Schedule - Thermostat follows a set Schedule. See Page 4. Making a change to the Set To temperature when the thermostat is in Schedule will override the schedule for 3 hours. After 3 hours the thermostat returns to the schedule Set To temperatures.
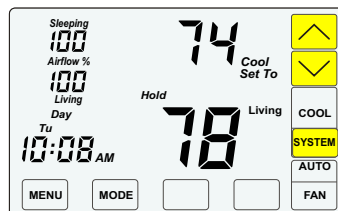
Turn COOLING On

Press the SYSTEM key until COOL is displayed. Press ⌃ or ⌄ to adjust the Cool Set To temperature to your desired comfort temperature. Cooling activates when the Set To temperature is below the room temperature. COOL blinks when the equipment is active and is solid when the equipment is idle.

Turn HEATING On

Press the SYSTEM key until HEAT is displayed. Press ⌃ or ⌄ to adjust the Heat Set To temperature to your desired comfort temperature. Heating activates when the Set To temperature is above the room temperature. HEAT blinks when the equipment is active and is solid when the equipment is idle.
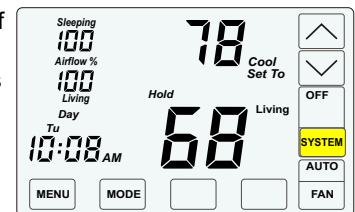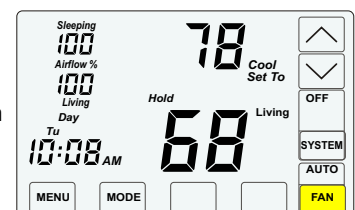
Turn Equipment Off

The equipment can be turned off in mild weather when Cooling and Heating are not used. Press the SYSTEM key until OFF is displayed.

Fan Operation

Fan operation includes AUTO (commonly used) or ON. In AUTO the fan is on during heating and cooling calls only. In ON the fan is on continuously. Press the FAN key to select AUTO or ON.
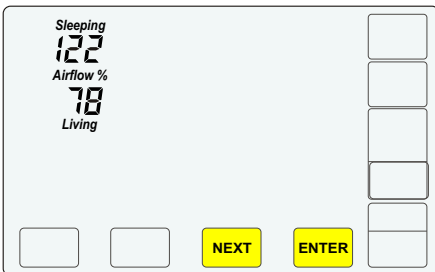
DISTRIBUTION OF HEATING AND COOLING AIRFLOW

The thermostat defaults to Automatic Uniform Comfort and automatically adjusts the distribution of heating and cooling to the upstairs and downstairs to keep the spaces within 2 degrees of each other. The thermostat also enables you to direct more heating or cooling to either the upstairs or downstairs zones as desired to improve comfort and save energy.

To change your comfort focus, press the "Airflow%" area. The last selection is displayed. Pressing NEXT cycles through Uniform Comfort, Upstairs Comfort and Downstairs Comfort.
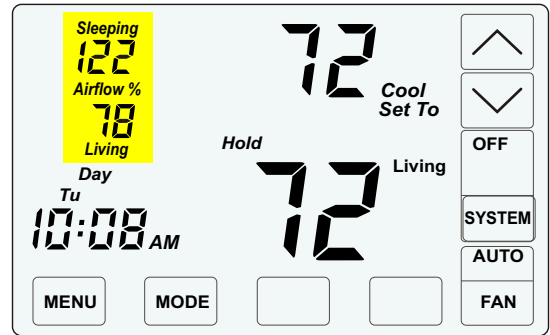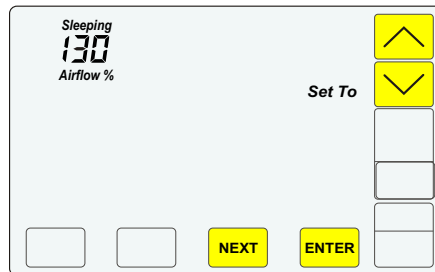
Uniform Comfort

The Sleeping and Living Airflow% are displayed. Press ENTER to have the thermostat automatically adjusts the distribution of heating and cooling to the upstairs and downstairs zones to keep the spaces within 2 degrees of each other.
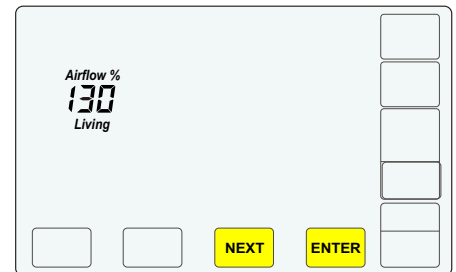
Or, press NEXT to go to Upstairs or Downstairs Comfort.

Upstairs Comfort

The Sleeping Airflow% is displayed. Press ∧ or ∨ to adjust the amount of heating or cooling to the upstairs sleeping zone. Press ENTER to save the new airflow setting. The upstairs temperature (Sleeping) is displayed and used to control heating and cooling calls.

Or, press NEXT to go to Downstairs Comfort.

Downstairs Comfort

The Living Airflow% is displayed. Press ∧ or ∨ to adjust the amount of heating or cooling to the downstairs living zone. Press ENTER to save the new airflow setting. The downstairs temperature (Living) is displayed and used to control heating and cooling calls.

Or, press NEXT to go to Uniform Comfort.

NIGHTTIME COMFORT OPTION

The Nighttime Comfort Option saves energy and improves comfort at night and is ideal for homes where all of the bedrooms are located upstairs.

The thermostat automatically directs 30% more heating or cooling to the upstairs sleeping zone and 30% less to the unoccupied downstairs zone, and uses the sensor upstairs to control the heating and cooling calls. Nighttime Comfort starts at the Night schedule (factory set to 10:00PM) and ends at the Morning schedule (factory set to 6:00AM). To adjust the start and end times, see Setting the Schedule on page 4.

If in Uniform Comfort, airflow returns to 100% and then will automatically adjust based on the temperatures in the upstairs and downstairs zones. If in Upstairs or Downstairs Comfort, airflow returns to the previous setting.

Press the MENU key to display the first option. Continue to press the MENU key until nAF OF option is displayed.
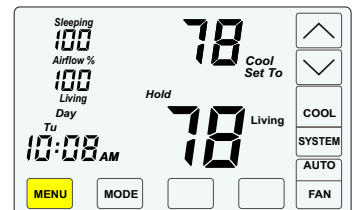
Press the ∧ key to turn nAF (Nighttime Airflow Control) On. Press MENU to advance to the next option to adjust the amount of heating or cooling directed upstairs or press ENTER to save the option.
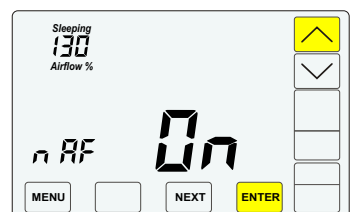
To adjust the amount of heating or cooling to the upstairs zone, press the ∧ or ∨ key then press ENTER.
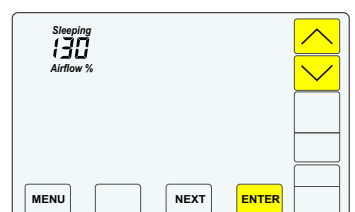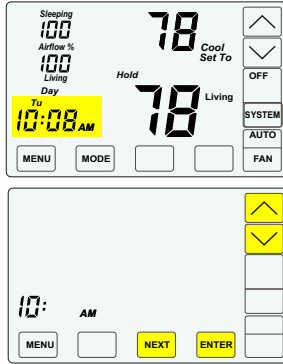
OPERATING YOUR THERMOSTAT

Setting the Time

Press the area where the time is displayed.

HOUR-Press ⌃ or ⌄ to adjust the hour and AM or PM. Press NEXT.

MINUTES-Press ⌃ or ⌄ to adjust the minutes. Press NEXT

DAY-Press ⌃ or ⌄ to adjust the day. Press ENTER.

Display Temperatures

The downstairs zone (Living) temperature is the temperature of the space where the thermostat is located. To display the temperature in the upstairs zone (Sleeping), press the "Living" temperature area. The "Sleeping" space temperature is displayed and after a few moments, the thermostat will return to displaying the temperature in the downstairs Living space.

Installing Batteries

The equipment provides power to the thermostat for thermostat operation. The batteries maintain time if there is a power outage.

Slide the battery cover downward and install the two AA batteries as shown. Change the batteries about every two years.
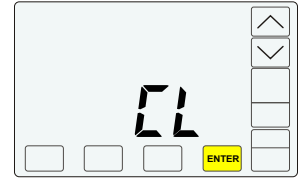
Clean Touchscreen

This option disables the touchscreen for 30 seconds. Use a soft cloth to wipe down the touchscreen.
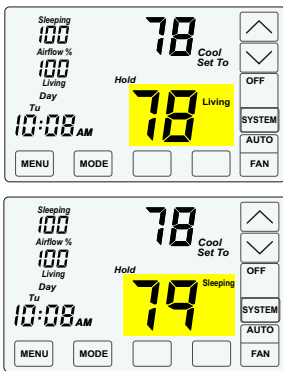
Press the MENU key to display the first option. Press the MENU key until CL is displayed.

Press ENTER to start the 30 second countdown.

Setting the Schedule

The thermostat is preset with the following schedule for weekdays (Mon-Fri) and weekends (Sat-Sun).

Mon-Fri	Time	Heat	Cool	Sat-Sun	Time	Heat	Cool
Morn	6:00 AM	70	75	Morn	6:00 AM	70	75
Day	8:00 AM	62	83	Day	8:00 AM	62	83
Even	6:00 PM	70	75	Even	6:00 PM	70	75
Nite	10:00 PM	62	78	Nite	10:00 PM	62	78

To change the schedule, press the MENU key to display the Schedule. Press the ⌃ key to access the weekday schedule or the ⌄ key to access the weekend schedule. Press NEXT.
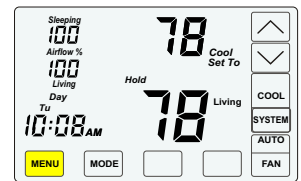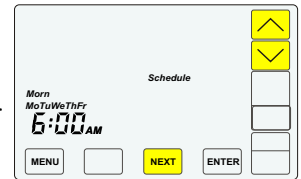
MORNING Start Time - Press the ⌃ or ⌄ key to adjust the Morning start time. Press NEXT.
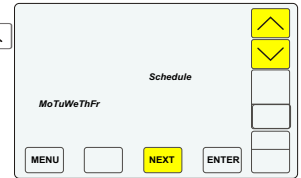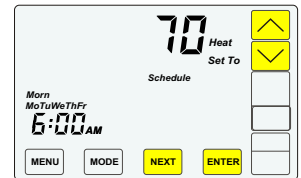
HEATING - Press the ⌃ or ⌄ key to adjust the Heating Set Point for Morning. Press NEXT.

COOLING - Press the ⌃ or ⌄ key to adjust the Cooling Set Point for Morning. Press NEXT.

Continue adjusting the Start Time, Heating Set Point and Cooling Set Point for the each schedule - Day, Evening and Night. Press ENTER once the schedules are completed.

TROUBLESHOOTING

Power Reset

Thermostat acting up? A power reset might help. Carefully remove the thermostat by pulling the thermostat directly away from the subbase. Remove the batteries. Let the thermostat sit for about 30 minutes. Carefully reattach the thermostat to the subbase and replace the batteries.

Sensor Error Message

nS is displayed when there is an error with the temperature sensor(s). Technician should check for open wires or shortages.

When the nS message is displayed, the thermostat will continue to control the system and automatically opens both dampers and disables airflow control until the sensor error is corrected.
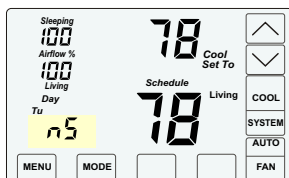
No Power Message

nP is displayed when the thermostat is not receiving power from the equipment. The touch panel is disabled. Technician should check the wiring to the R and C terminals on the subbase and the equipment. Check the R and C pins on the back back of the thermostat. Make sure equipment is powered.
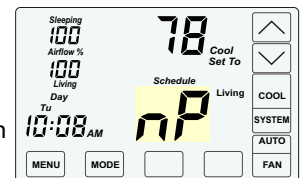
Blank LCD

Install 2 AA batteries. If the display is still blank, the thermostat needs to be replaced. If you receive an nP message, see below.

https://365-US.com/#/Home

Smart Controls   **Home**

Welcome, *Your Username*

C365T21WF_1234

Temp:	**71ºF**
Mode:	**Cooling**
Cool:	**78ºF**
Heat:	**68ºF**
Model:	**Comfort365**

Account Info

1 Open the account Login Page on a smart phone, tablet or PC.

● Open a web browser. Google Chrome is recommended.

● In the address bar, type

365-us.com
For Android or Apple phones.

http://365-us.com
Some Apple phones may need to use this address.

google.com

☰ ALL   IMAGES

Google

● Press GO to open the Login page.

● Click **Register Here** open the Register page.

https://365-US.com/login

Smart Controls   **Login**

Username

Password

■ Save Username and Password

Log In

Don't have an account yet? **Register Here**

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2 Create a Username and Password

Username is 4 to 16 characters (letters and numbers only) and not case sensitive. Password is 4 to 16 characters (letters and numbers only) and is case sensitive. Keep it simple.

Smart Controls   **Register**

New Username
4-16 characters, case insensitive
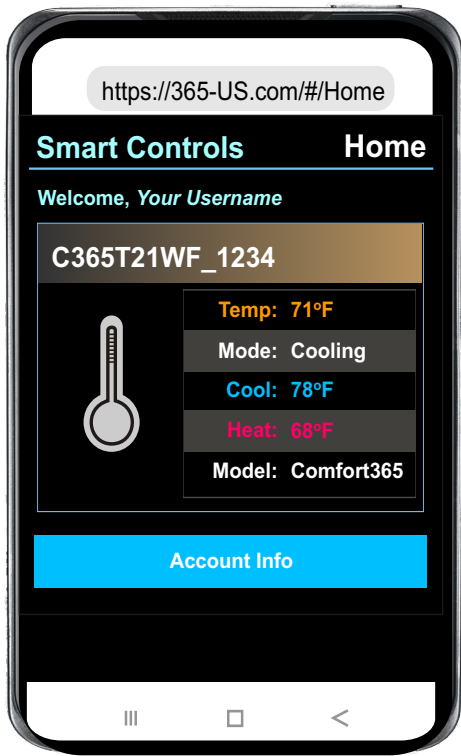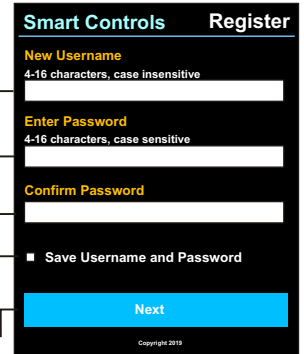
Enter Password
4-16 characters, case sensitive

Confirm Password

■ Save Username and Password

Next

Copyright 2019

● Enter a Username.

● Enter a Password.

● Confirm Password.

● Select "Save Username and Password".

● Click NEXT to open the Home page.

Record your Username and Password below.

Username	Password (Case Sensitive)

● Google may display the following message. To save your account password in Google, select SAVE. Or, press X to close the message.

365-us.com

Smart Controls   **Home**

Welcome, *Your Username*

No devices are registered to this user account yet!

Account Info

Log Out

Save password?   X

Passwords are saved in your Google Account so you can see them on any device.

Never   **Save**
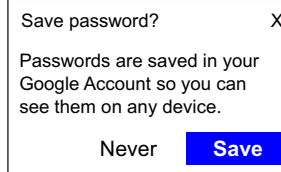
● Tap the Home button on your device to close the browser window.

3 Broadcast the WiFi Network

Sleeping
100
Airflow %
100
Living
Day
Tu
10:08 AM

78 *Cool Set To*
Schedule
78 *Living*

COOL
SYSTEM
AUTO
FAN

MENU   MODE

Touch and release the **MENU** key until the linking option, **Lnc**, is displayed.

Lnc **OF**

ENTER

Touch the **UP** key to select **ON**.

Lnc **On**
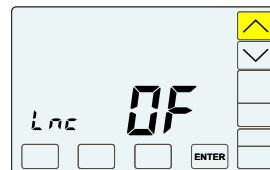
ENTER

Touch the **ENTER** key to save.

WiFi on the display will blink. Continue with the linking process.

This option is only used during the linking process and reverts back to Off once the menu is closed.

5

CONNECTING WIFI

4 Connect to the WiFi Network

● On your device, tap the Settings icon to open the Settings page. Select WiFi or something similar to display the WiFi settings page. Tap WiFi to open the page that displays the available WiFi networks.

● Find one of the following networks (the last 4 digits will vary):

365cfg
or
C365T21WF_XXXX
or
SmartControlscfg_XXXX

● Tap the network to set as your Current network or your Connected network..

● Once connected and displaying as the Current network, tap the Home button on your device to close the Settings page.

If you receive a message about staying connected, select **Stay Connected.**

< Wi-Fi

On ⬤

Current network
📶 **C365T21WF_1234**
Checking Connection

Available networks
📶 **MyHomeNetwork**
📶 **AdamsFamily**
📶 **LoveSoccer**

5 Connect the WiFi to Your Home WiFi Network

● Open a web browser. Google Chrome is recommended.

● In the address type:

192.168.8.2
For Android or Apple phones.

http://192.168.8.2
Some Apple phones may need to use this address.

⌂ 🔒 google.com
≡ ALL IMAGES
Google

● Press GO on the keyboard to open the WiFi Setup page.

When entering your username and password, make sure your device hasn't autofilled or autocapitalized.

● Tap in Username and type in your username.

● Tap the Home WiFi Network box and select your Home WiFi Network.

● Tap the Home WiFi Password box and type in your WiFi password.

https://192.168.8.2

Smart Controls   WiFi Setup

Join your Home WiFi Network

Smart Controls Username   *Username*
Home WiFi Network   ▼ *Home WiFi Network*
Home WiFi Password   **********

Advanced Options:
Security   WPA/WPA2 Personal(PSK) ▼
Channel   All (recommended)l ▼
DHCP   yes (automatically obtain ip) ▼

Save

After you click "Save" the Smart Control will attempt to link to your home network.

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● Click SAVE.

● When the following message appears, click OK.

192.168.8.2 says
Settings were saved, the device has returned to operating mode, you may close this page.   **OK**

● Tap the Home button on your device to close the WiFi Setup page.

WiFi turns solid when the thermostat is linked to the home network.

eControls

Sleeping
120
Airflow %
WiFi
80
Living
Day
Tu
10:08 AM

72
Cool
Set To

Schedule
72
Living

△ ▽
COOL
SYSTEM
AUTO
FAN

MENU MODE
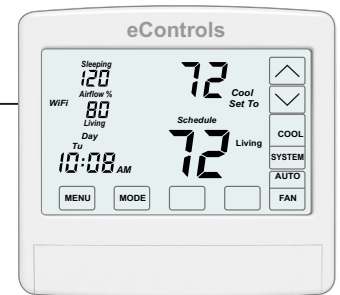
6 Log In to Your Account

● Open a web browser. Google Chrome is recommended.

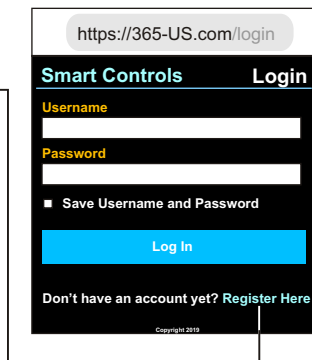● In the address bay type:

365-us.com
For Android or Apple phones

http://365-us.com
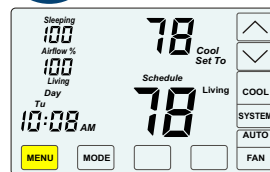Some Apple phones may need to use this address.
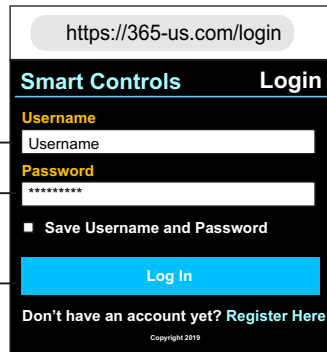
google.com
☰ ALL IMAGES
Google

● Press GO on the keyboard to open the Home page.

If Login page is displayed, enter your username and password..

● Tap Username and type in your Username.
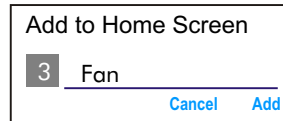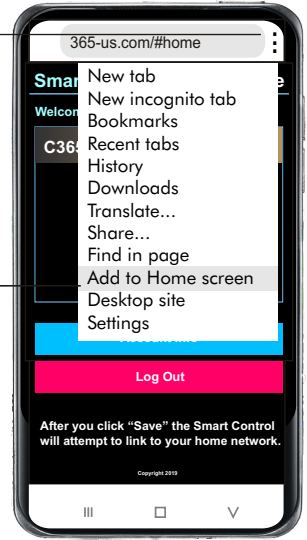
● Tap Password and type your Password.

● Tap Log In to open the Home page.

https://365-us.com/login

Smart Controls **Login**
Username
Username
Password
****
☐ Save Username and Password
Log In
Don't have an account yet? **Register Here**
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7 Add 365-US.com icon to your Home Page

For easy access to your Comfort365 WiFi account, add an icon to your device home page.

● Android - Tap the 3 vertical dots near the address bar. iPhone - Tap the Action menu at the center bottom.

● The following box or similar displays. Select Add to Home screen.

● The following message or similar displays. Rename if desired. Tap Add.

365-us.com/#home ⋮
New tab
New incognito tab
Bookmarks
Recent tabs
History
Downloads
Translate...
Share...
Find in page
Add to Home screen
Desktop site
Settings

Log Out

After you click "Save" the Smart Control will attempt to link to your home network.
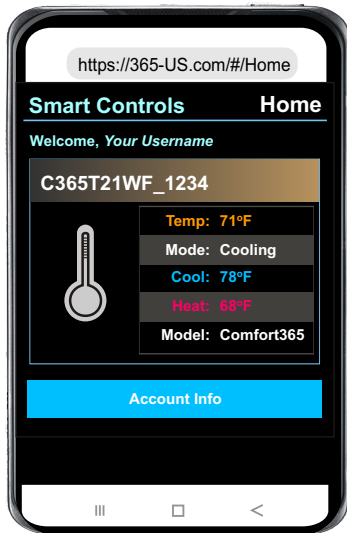
Copyright 2019

Add to Home Screen
3 Fan
Cancel **Add**

● If the Add to Home Screen? displays again, tap Add.

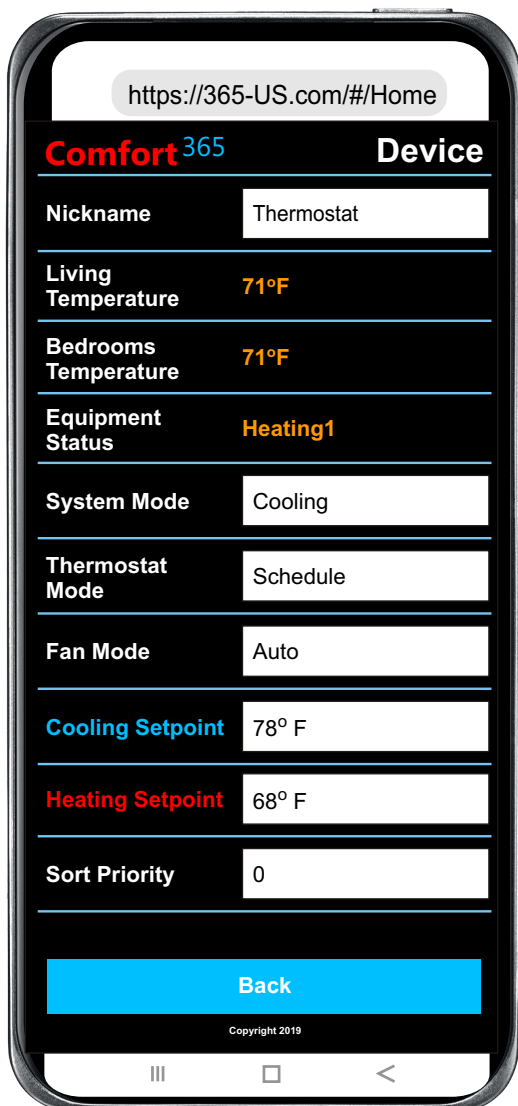● Now, simply tap on the App icon to access your whole house fan WiFi account.

3
365

CONTROLLING HEATING AND COOLING

https://365-US.com/#/Home

Smart Controls   Home

Welcome, *Your Username*

C365T21WF_1234

Temp: 71ºF	
Mode: Cooling	
Cool: 78ºF	
Heat: 68ºF	
Model: Comfort365	

Account Info

Tap anywhere in the box to open the Device Page.

Account Info is optional and can be added at any time.

https://365-US.com/#/Home

Comfort ³⁶⁵   **Device**

Nickname	Thermostat
Living Temperature	**71ºF**
Bedrooms Temperature	**71ºF**
Equipment Status	**Heating1**
System Mode	Cooling
Thermostat Mode	Schedule
Fan Mode	Auto
Cooling Setpoint	78º F
Heating Setpoint	68º F
Sort Priority	0

Back

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Name set by homeowner.

Displays temperatures in the living and sleeping spaces and the equipment status.

Selects Heat, Cool or Off.

Selects Hold, Schedule or Vacant Mode.

Selects Auto or On.

Set the Cooling Comfort temperature.

Set the Heating Comfort temperature.

Homeowner can set the order that Smart Controls are displayed on the previous screen when multiple devices are installed.

Patent US 10,520,212 B1

Made in the USA

eControls

26072 Merit Circle #110 / Laguna Hills, CA 92653
949-916-0945 Fax 949-458-8502 www.eControlsUSA.com