# AWC99U01 iGate® 2 Communicating Thermostat

CLIMATEMASTER®
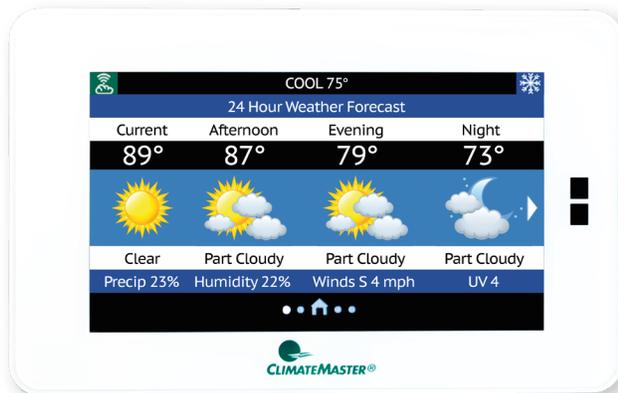
Installation, Operation & Maintenance

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Revised: July 25, 2024

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iGate® 2 Communicating (AWC) Thermostat

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⚠ CAUTION! ⚠

These instructions are intended to be used by the installer or service personnel. End users are NOT advised to change or modify any of these settings. Doing so may cause the equipment to stop working properly and/or may void the warranty on both the thermostat and the equipment.

TECHNICAL SUPPORT

Our technical support team is available to answer your questions at 1.800.299.9747.

BEFORE YOU BEGIN

This product is intended to be installed by trained service professionals.

This manual explains the procedures for installing the ClimateMaster iGate® 2 Communicating (AWC) Thermostat. Please read it carefully before beginning the installation.

For information on how to operate the AWC Communicating Thermostat, please see the [AWC Communicating Thermostat User Manual](#).

The AWC Communicating Thermostat is designed to be mounted on the homeowner's wall in a convenient location.

SPECIFICATIONS

Power	24 VAC +/- 10% @ 3 VA
Dimensions	5.13 in. (130 mm) X 3.23 in. (82 mm) X 0.93 in. (24 mm)
Network Requirements	Wi-Fi connectivity supports Wi-Fi: 802.11 a/b/g/n standards on 2.4 GHz networks
Environmental Operating Range	32° to 104°F (0° to 40°C), 10 to 95% relative humidity, non-condensing
Mounting	Standard 4x2-in. electrical box using the 6-32 x 1/2-in. mounting screws provided
Listed by	FCC Part 15, Subpart J compliant

WIRING REQUIREMENTS

The following table shows the maximum wire lengths allowed:

Thermostat to HVAC Equipment		
18 AWG	20 AWG	22 AWG
1250 ft/380 m	800 ft/240 m	500 ft/150 m

INSTALLATION CONSIDERATIONS

The thermostat requires no batteries. The thermostat is not a power stealing device and MUST have both R and C terminals connected. See Diagram 1.

INSTALLATION

Thermostat Location

Thermostat should be mounted:
- Approximately 5 ft. (1.5 m) above floor.
- Close to or in a frequently used room, preferably on an inside partitioning wall.
- On a section of wall without pipes or duct work.

Thermostat should NOT be mounted:

- Close to a window, on an outside wall, or next to a door leading to the outside.
- Exposed to direct light and heat from a lamp, sun, fireplace, or other temperature-radiating object which may cause a false reading.
- Close to or in direct airflow from supply registers
- In areas with poor air circulation, such as behind a door or in an alcove.

Thermostat Installation

1. Turn System Power Off.
   a. Go to the relevant circuit breaker panel and switch the equipment breakers off.
   b. To confirm power is off, check voltage with voltmeter to ensure that the power has been successfully shut off before proceeding to next step.

⚠ CAUTION

Disconnect electric power to the HVAC system before installing this product. Failure to do so could result in electric shock and/or equipment damage. All wiring must conform to you local electrical code.

If you are replacing a current communicating thermostat continue with the next step, if you are installing a new system skip to step 5.

2. Remove the faceplate of the current thermostat. Most face plates snap off or feature small screws that will need to be removed.

TIP: Before disconnecting any wires, take a photo of the current wire configuration with your mobile device.

MERCURY NOTICE: This product does not contain mercury. If you are replacing a product that does contain mercury, contact your local waste–management authority for disposal instructions. Do not discard the old product in the regular trash.

3. Label and Disconnect Wires.
   One by one, apply a label designated to each wire connected to the backplate of the current thermostat then disconnect the wire from the current thermostat backplate.

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TIP: Wrap the wires around a pen or pencil to keep them from falling inside the wall.

4. Remove the current backplate.

5. Mount the new base.
    a. Gently separate the display from the base of the new thermostat by pulling thermostat straight away from the base.
    b. Position the base against the wall and determine if wall anchors from current thermostat align with screw locations of new base.
    c. If base does not align with existing anchor holes, mark new screw locations with a pencil.
        - Drywall: Drill ³⁄₁₆-inch hole for the anchor.
        - Plaster: Drill ⁷⁄₃₂-inch hole for the anchor.
    d. Pull wires through opening in base and secure to the wall using provided screws.

TIP: Use a level to ensure thermostat is properly aligned.

6. Connect wires.
    a. Match your wire configuration to the terminals on the base. Reference Diagram 1.
    b. Connect each wire individually by pushing down on the quick connect tab, inserting the wire into the connector opening, and then releasing the tab.
    c. If remote indoor and/or outdoor sensors are used, they may be connected at this time.
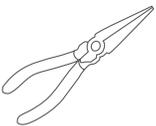
TIP: Use pliers to straighten wire before inserting into new base. Be sure to cut any excess wire so that the insulation extends to the terminal block. When the wire is installed properly to the terminal block, there should be no copper exposed.

22 AWG shielded wire is required when installing a remote sensor further than 100 feet (30.5 meters).

7. Attach the thermostat face.
    a. Align the thermostat face using hinge guide on top.
    b. Rotate the thermostat down until tab aligns with hole in base.
    c. Install security screw if necessary.

8. Return power to system.

Wiring Diagram

All excess wire should be pushed back into the wall as far as possible.

Diagram 1: Thermostat Connections
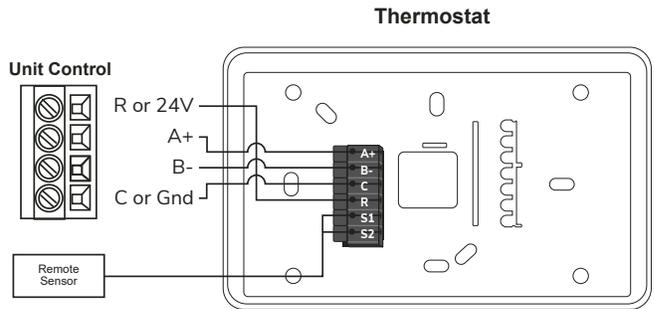
Thermostat Connections
A+ Communications (Positive)
B– Communications (Negative)
C 24 V Common for Control Circuit
R 24 V Supply for Control Circuit
S₁ Remote Sensor
S₂ Remote Sensor

SYSTEM CONFIGURATION

NOTE: Ensure your mobile device is updated before proceeding. myUplink is supported on the latest version of Android, iOS, and the last two major versions of each operating system. Some older devices and operating systems may not be supported.

From the thermostat display:

If the thermostat is not connected to a Wi-Fi router, skip to step 6. Otherwise, follow steps 1-5 to put the thermostat in Access Point (AP Access) mode.

1. To configure the System Settings using the myUplink PRO mobile app, set the thermostat System Mode to "OFF".

2. Swipe left or right on the thermostat screen until you reach the Fan screen.

3. Press the Fan button for 5 seconds to enable the "System Settings" screen.

4. Scroll down to select the "AP Access" option.

5. Select "YES" to enable.

From the myUplink PRO app:

6. With your mobile device within 15 ft of the thermostat, open and login to your myUplink PRO app.

7. From the Systems screen, select the green "add" button at the top right.

8. Select the "Connect Locally". The app will find any devices in Access Point mode.

9. Select the thermostat from the list of discovered devices.

10. Select Menu icon.

11. From the Main Menu, select each device to configure its settings.

    Reference the Thermostat Settings and Equipment Settings sections for additional information.

12. When finished, cycle power to the thermostat to return to Station mode connecting to the internet through the user's Wi-Fi router.

The thermostat will automatically timeout of Access Point mode and return to Station mode after 2 hours.

THERMOSTAT SETTINGS
User Settings – Available remotely (web/mobile) and at thermostat display.

Thermostat Setting	Description	Range/Options	Default
Thermostat Name	16 character text input	Configures the thermostat's displayed name	
Touch Volume	Configure the sound made when touching the thermostat.	Off, Click, Beep	Click
Auto Daylight Savings Time	Configures automatic Daylight-Saving Time change in the thermostat.	Disabled, Enabled	Enabled
Security	Restricts access requiring the user to enter a 4-digit security PIN.	Disabled, Enabled	Disabled
Security PIN (requires Security to be enabled)	4-digit security PIN for restricting access.	0000–9999	--
Active Backlight	Adjusts the backlight intensity when the thermostat is in an active state (being accessed or viewed by the end user).	10% – 100%	75%
Standby Backlight	Adjusts the backlight intensity when the thermostat is in a dormant state (not being accessed or viewed by the end user).	0% – 25%	25%
Active to Standby Timer (Screen Timeout)	Maximum amount of time the backlight stays active when no activity is sensed at the thermostat.	5 to 30 seconds, in 5 second intervals	15 seconds
Programming	Programming feature to set the time, heat setting, cool setting, and fan operation for each program schedule event of the day.	Non-programmable, Programmable	Non-Programmable
# Program Day Parts (requires Programming to be enable)	Configures the number of program schedule event each day.	2, 4	4

With Security enabled, after 5 failed attempts, a notification is sent to the registered owner of the thermostat through Wi-Fi. More unlock attempts are blocked for 15 minutes.

The thermostat only allows for viewing the program and vacation schedules. Use the myUplink or myUplink Pro app to perform permanent program and vacation schedule changes. Find detailed instructions for setting program and vacation schedules in the iGate 2 User Manual.

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Example: Thermostat Screen Selections
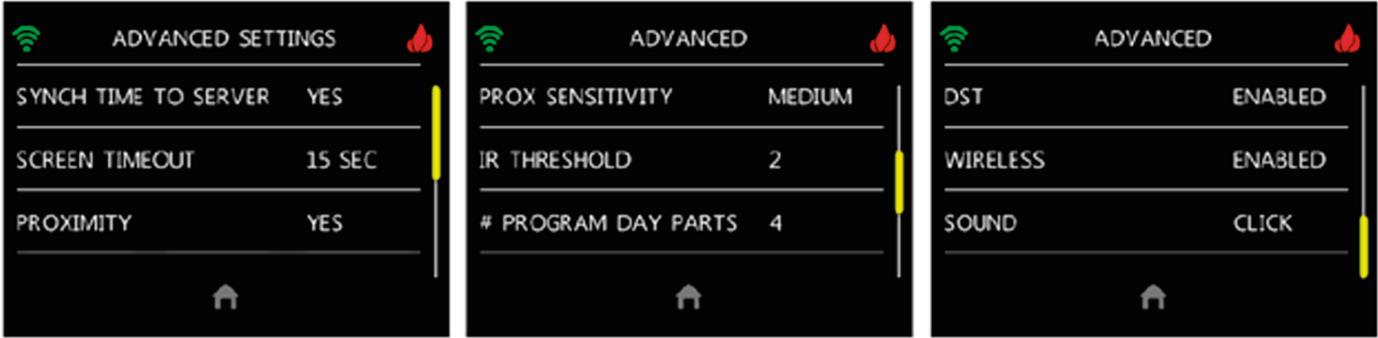
User Setting	Description	Range/Options	Default
Sync Time to Server	Sync time and date with cloud server based on thermostat location, which is determined by your mobile app or ISP during setup.	No, Yes	Yes
Proximity	Configure proximity sensing that changes the screen backlighting from Standby to Active when a person is sensed in front of the thermostat.	No, Yes	Yes
Proximity Sensitivity	Configure the proximity sensing feature. Increasing the sensitivity increases the range the sensor can detect presence, but also increases the possibility of a false presence.	High, Medium, Low	Medium
Wireless	Configures Wi-Fi functionality of the thermostat.	Enabled, Disabled	Enabled

If disabled, then the Wi-Fi radio in this product is turned off and functions such as the following are not available - Sync Time to Server, Outdoor Temperature via Wi-Fi Geo location, Server & Wi-Fi Errors, Remote Access Services via App or Web.

Disabling this function after the thermostat has been set up and connected to the local Wi-Fi network, requires set up again using the mobile app.

Alert Configuration

Alert Configuration	Description	Range/Options	Default
Air Filter Reminder	Generates an alert that indicates it is time to clean or replace the system air filter (equipment run time hours).	0 – 15,000 hours, in 100-hour increments	3,000 hours

System Settings

Reference the System Configuration section for information on accessing System Settings.

Available remotely (web/mobile) and at thermostat display.

System Setting	Description	Range/Options	Default
Auto Mode Allowed	Automatically switch from heating to cooling to maintain the temperature between the setpoints.	Yes, No	Yes
Compressor Stages[1]	Adjust the staging option using the up/down arrow buttons. Select Single Stage for control of a single stage compressor applications. Select Multi-Stage for control of multistage compressor applications.	Single Stage, Multi-stage	Multi-stage
Temperature Control[1]	Configure the logic the unit control uses to meet the temperature setpoints. The Proportional Integral logic will use a combination of temperature differential and operating time to determine the appropriate heating or cooling stages for operation. The Proportional Integral (No Down Staging) logic includes the Proportional Integral logic, but in addition the logic keeps all active heating or cooling stages energized until the demand is fully satisfied.	Proportional Integral, Proportional Integral (No Down Staging)	Proportional Integral
Cycles per Hour[1]	Adjust the maximum number of on/off cycles per hour to maintain the desired indoor temperature. Select 4 to limit operation to start no sooner than 15 minutes after the previous call was initiated. Select 4 to limit operation to start no sooner than 20 minutes after the previous call was initiated. Select 6 to limit operation to start no sooner than 10 minutes after the previous call was initiated (can provide tighter temperature control).	2, 4, 6	6
Time Zone	Configures the time zone of the thermostat.	Hawaii, Alaska, Pacific, Mountain, Central, Eastern, Atlantic, Newfoundland, Pierre & Miquelon, W. Greenland, E. Greenland, Greenwich	Central
Auxiliary Heat	Configures the auxiliary heat mode.	Supplemental, Emergency, None	Supplemental
Application Mode	Configures the application of the thermostat.	Commercial, Residential	Residential
Hold Action	Select how long the iGate® 2 Communicating (AWC) Thermostat will hold the new temperature before reverting to the regular program.	1 Hour, 2 Hours, 3 Hours, 4 Hours, 5 Hours, 6 Hours, Until Next Prog Event	2 hours
Temperature Display	Configures the temperature scale.	Fahrenheit, Celsius	Fahrenheit
Smart Recovery Mode (requires Programming to be enabled)	Transitions the conditioned space from one programmable temperature period to the next with 1°F increments of the heating setpoint or with 1°F decrements of the cooling setpoint, so that by the time the next period starts, the setpoints are at the desired temperature. The purpose of the gradual transition is to use less energy by preventing staging up (because of a higher demand) to higher stages. The transitions occur in a linear fashion over the smart recovery time period.	No, 30 minutes, 60 minutes, 90 minutes	30 minutes
Remote Sensor	Configure the application of the remote sensor input.	None, Space, Outdoor, Average, Occupancy	None
Humidity Control	Determines available humidity mode(s).	Humidification, Dehumidification, Both, None	Dehumidificaton
Line Frequency	Configures the operational timers within the thermostat to ensure timing accuracy.	50 Hz, 60 Hz	60 Hz
Indoor Temperature Offset	Allows for calibration of the temperature sensor by the selected amount.	−5°F to +5°F, in 1°F increments (−2.5°C to +2.5°C, in 0.5°C increments)	0°F (0°C)
Humidity Offset	Allows for calibration of the humidity sensor by the selected amount.	−9% to +9% in 1% increments	0%

Note 1: Applies to Tranquility only.

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System Setting	Description	Range/Options	Default
Maximum Heat Setpoint	Maximum heating setpoint available on the Heat Setpoint Wheel and the maximum heating setpoint that can be used during the occupied program schedule.	50°F to 88°F, in 1°F increments (10°C to 31°C, in 0.5°C increments)	88°F (31°C)
Minimum Cool Setpoint	Minimum cooling setpoint that is available on the Cool Setpoint Wheel and the minimum cooling setpoint that can be used during the occupied program schedule.	52°F to 90°F, in 1°F increments (11°C to 32°C, in 0.5°C increments)	65°F (18.5°C)
Compressor Anticipator[1]	Configures the sensitivity of the thermostat to the space temperature. A lower setting will cause the unit to respond more rapidly to changes in space temperature. A higher setting will cause the unit to respond more slowly to changes in space temperature.	1 to 10	5
Auxiliary Heat Deadband[1]	Configures the amount of space temperature delta from set point allowed from the heating setpoint at maximum unit capacity before allowing auxiliary heat for space heating.	0.0 to 5.0°F	1.0°F
Occupancy Input (requires Remote Sensor set to Occupancy and Programming enabled)	Configures the interpretation of a short detected on the Remote Sensor input (for the duration of 2 to 5 seconds).	Occupied, Unoccupied	Occupied
Serial Number	Thermostat Serial Number	--	--

Note 1: Applies to Tranquility.

Starting a temporary hold in the middle of a smart recovery, the setpoints of the temporary hold are used. If a temporary hold is already active during the time that smart recovery would have been started, a smart recovery does not start. If the temporary hold ends in the middle of what would have been a smart recovery, the smart recovery starts where it would have been in the linear progression at the same time as when the temporary hold was not active.

If Remote Sensor configured to None or Space, the outdoor temperature is acquired by Wi-Fi through the server, based on the location of the mobile device used to connect the thermostat to a router.

Remote Sensor option Occupancy requires programming to be enabled.

Humidification logic will communicate a Humidification output when the space humidity is less than the setpoint (i.e., acts as a humidistat). When the Humidification output is active, the fan output will also be active. The Humidification output will not be communicated when the space humidity is above the setpoint.

Dehumidification logic will reduce the cooling airflow when the space humidity is greater than the setpoint to improve dehumidification (i.e., acts as a dehumidistat). The cooling airflow will not be reduced when the space humidity is below the setpoint.

Available at Thermostat Display

System Setting	Description	Options
AP Access	Enables access point mode for local connection to the thermostat via the myUplink PRO mobile application.	Yes, Cancel
Disconnect Wi-Fi	Disconnects the thermostat from the Wi-Fi network.	Yes, Cancel
Restore Defaults	Provides a means to reset all thermostat settings back to their factory defaults. Press and hold the button for 5 seconds to initiate and restore all system setting defaults.	

The thermostat will automatically timeout of Access Point mode and return to Station mode after 2 hours.

Disconnecting the Wi-Fi requires setting up the thermostat using the myUplink mobile application in order to re-establish Wi-Fi connectivity.

Disabling this function after the thermostat has been set up and connected to the local Wi-Fi network, requires set up again using the mobile app.

EQUIPMENT SETTINGS
Configuration

Unit Configuration
The Unit Configuration settings allow the installer to configure the thermostat to the installed equipment.

Unit Configuration is only necessary when replacing a unit controller. The Unit Configuration settings are programmed at the factory when the unit is built.

Configuration Setting	Description
Heat Pump Family	Select the family of heat pump.
Heat Pump Size	Select the unit model.
Blower Type	Select the blower type.
Loop Configuration	Select vFlow® type.

Capacity Configuration (applies to Trilogy units)
Range for the capacity settings will depend on model selection.

Configuration Setting	Description
Minimum Heating Capacity	Configures the minimum unit heating capacity. When the space requires a heating capacity below this setting the unit will cycle off.
Maximum Heating Capacity	Configures the maximum unit heating capacity. When the space requires a heating capacity above this setting the unit will call for auxiliary heat (if applicable).
Minimum Cooling Capacity	Configures the minimum unit cooling capacity. When the space requires a cooling capacity below this setting the unit will cycle off.
Maximum Cooling Capacity	Configures the maximum operational unit cooling capacity.

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Threshold Configuration (applies to Trilogy units)

This section configures the temperature, time, and capacity thresholds associated with the heating, cooling, and hot water (if applicable) equipment. You must configure the Equipment settings before setting the thresholds. Only the applicable threshold settings will be displayed.

System Setting	Description	Range/Options	Default
Compressor Anticipator	Configures the sensitivity of the thermostat to the space temperature. A lower setting will cause the unit to respond more rapidly to changes in space temperature. A higher setting will cause the unit to respond more slowly to changes in space temperature.	1 to 10	5
Cooling Hot Water Cut Out	Determines the point at which the space cooling demand outpaces the ability of the potable water heating mode to accept the heat of rejection from the cooling mode when both are active at the same time. At this setting and above the heat of rejection from the cooling mode will be sent to the source (ground loop).	70% to 100%	100%
Heating Hot Water Cut Out	Potable water heating normally takes priority over space heating. This setting determines the point at which the space heating demand will take priority over the potable water heating demand.	70% to 100%	90%
Auxiliary Heat Dead-Band	Configures the amount of space temperature droop allowed from the heating setpoint at maximum unit capacity before allowing auxiliary heat for space heating.	0.0°F to 5.0°F	1.0°F
Cooling Hot Water Cut Out Offset	This setting establishes the maximum acceptable space temperature rise during the cooling mode while the heat from the space is being rejected into the potable hot water. If the space temperature rises more than this amount, the potable water heating mode will be terminated and the cooling mode will reject the heat from the space to the source (ground loop).	0.5°F to 1.5°F	0.5°F
Heating Hot Water Cut Out Offset	This setting establishes the maximum acceptable space temperature drop during the potable hot water mode before the unit switches to the space heating mode. If the space temperature drops more than this amount, the potable water heating mode will be terminated and the space heating mode will be activated.	0.5°F to 1.5°F	1.0°F

Airflow Configuration

Range for the airflow settings will depend on model and capacity selection (in 25 cfm increments). Tranquility systems must be paired with CV ECM fan motors for this functionality to be applicable. Please reference the unit model number located on the unit data plate with the model nomenclature decoder in the unit IOM to determine if your product contains a CV ECM.

Configuration Setting	Description
Min Heating Airflow (applies to Trilogy units)	Configures the unit airflow while operating at minimum capacity in the heating mode. The installer may wish to select a higher cfm than the nominal cfm for this setting to ensure proper air movement during low-capacity operation.
Max Heating Airflow (applies to Trilogy units)	Configures the unit airflow while operating at maximum capacity in the heating mode. The installer may wish to select a lower cfm than the nominal cfm for this setting to avoid air velocity noise from the ductwork during maximum capacity operation.
Min Cooling Airflow (applies to Trilogy units)	Configures the unit airflow while operating at minimum capacity in the cooling mode. The installer may wish to select a higher cfm than the nominal 400 cfm/ton for this setting to ensure proper air movement during low-capacity operation.
Max Cooling Airflow (applies to Trilogy units)	Configures the unit airflow while operating at maximum capacity in the cooling mode. The installer may wish to select a lower cfm than the nominal 400 cfm/ton for this setting to avoid air velocity noise from the ductwork during maximum capacity operation.
Low Dehumidification Airflow (applies to Trilogy units)	Configures the unit airflow while operating at minimum capacity in the dehumidification mode.
High Dehumidification Airflow (applies to Trilogy units)	Configures the unit airflow while operating at maximum capacity in the dehumidification mode.
Heat Stage 1 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at minimum capacity in the heating mode. The installer may wish to select a higher cfm than the nominal cfm for this setting to ensure proper air movement during low-capacity operation.
Heating Stage 2 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at maximum capacity in the heating mode. The installer may wish to select a lower cfm than the nominal cfm for this setting to avoid air velocity noise from the ductwork during maximum capacity operation.
Auxiliary Heat Airflow (applies to Tranquility units)	Configures the unit airflow during the auxiliary heat mode (if applicable).
Emergency Heat Airflow	Configures the unit airflow during the emergency heat mode (if applicable).
Cool Stage 1 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at minimum capacity in the cooling mode. The installer may wish to select a higher cfm than the nominal 400 cfm/ton for this setting to ensure proper air movement during low-capacity operation.
Cooling Stage 2 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at maximum capacity in the cooling mode. The installer may wish to select a lower cfm than the nominal 400 cfm/ton for this setting to avoid air velocity noise from the ductwork during maximum capacity operation.
Cool Dehumidification Stage 1 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at minimum capacity in the dehumidification mode.
Cool Dehumidification Stage 2 Airflow (applies to Tranquility units)	Configures the unit airflow while operating at maximum capacity in the dehumidification mode.
Constant Fan Airflow	Configures the unit airflow while operating in the continuous fan mode.
Heat Off Delay	This setting determines whether (and how long) the blower will continue to operate after the compressor has cycled off at the end of each heating cycle (0 seconds to 255 seconds, in 5 second increments).
Cool Off Delay	This setting determines whether (and how long) the blower will continue to operate after the compressor has cycled off at the end of each cooling cycle (0 seconds to 255 seconds, in 5 second increments).

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Loop Configuration

Configures the internal vFlow® device to the application. The vFlow device will adjust the flow to maintain the selected temperature difference (Delta T) between the entering and leaving water for the active operating mode. Loop configuration mode is only applicable to those system who have vFlow components installed in them. The vFlow option is not available on all product lines and is offered as an option on certain product lines. Please reference the unit model number located on the unit data plate with the model nomenclature decoder in the unit IOM to determine if your product contains vFlow components.

System Setting	Description	Range/Options	Default
Loop Option	Configures the application for the loop.	Single system (one unit, one loop), Parallel system (multiple units, one common loop, parallel pumping)	Single system
Heating Temperature Delta	Sets the source water flow rate for the heating mode. The variable speed pump or modulating water valve will adjust the source water flow to maintain the selected temperature difference between the entering and leaving source water during the heating mode.	5.0°F to 12.0°F	6.0°F
Cooling Temperature Delta	Sets the source water flow rate for the cooling mode. The variable speed pump or modulating water valve will adjust the source water flow to maintain the selected temperature difference between the entering and leaving source water during the cooling mode.	9.0°F to 20.0°F	10.0°F

Option Configuration

System Setting	Description	Range/Options	Default
Compressor ASCD (Anti-Short Cycle Delay Time)	Configures the minimum amount of time the compressor will remain off between cycles.	3 to 8 minutes[1]	5 minutes
Extended Compressor Operation	Configures the control to monitor the compressor operation.	Enabled, Disabled	Enabled
LT1 (JW3) Jumper	Status of the JW3 jumper low temperature (antifreeze) operation.	No (30°F), Yes (10°F)	No (30°F)
Motorized Valve	Configures the compressor start delay until the valve is fully open.	Off, On	Off
Over/Under Voltage Detection (applies to Tranquility)	Configures the over/under voltage detection.	Enabled, Disabled	Enabled
Source Antifreeze	Configures the low temperature protection setting for the source water heat exchanger.	No - 30°F, Yes - 10°F	No - 30°F

Note 1: Range depends on the model of equipment.

Over/Under Voltage condition exists when the control voltage is outside the range of 18 VAC to 31.5 VAC.

DHW Pump Configuration (applies to Trilogy units)

System Setting	Description	Range/Options	Default
Water Heating Delta T (applies to SmartTank Water Heater)	Configures the potable water flow rate for the water heating mode. The variable speed potable water pump will adjust the potable water flow to maintain the selected temperature difference between the entering and leaving potable water during the water heating mode.	8.0°F to 12.0°F	8.0°F

Smart Tank Configuration (applies to Trilogy units)

Configure the hot water mode settings.

System Setting	Description	Range/Options	Default
Hot Water Efficiency	When Hot Water Efficiency is enabled (ON) the AWS backup electric elements will operate when the connected heat pump is locked out or when the heat pump cannot keep up with the household hot water demand. When Hot Water Efficiency is disabled (OFF) the iGate Smart Tank electric elements will engage sooner when the connected heat pump is locked out or when the heat pump cannot keep up with the household hot water demand.	Efficiency, Comfort	Efficiency
Hot Water Mode	Determines the heat source for your hot water.	Off, Heat Pump, Emergency Heat (electric tank elements)	Off
Hot Water Setpoint	Establishes the set point for your hot water.	50.0°F to 135.0°F	120.0°F
HW Heat Dead Band	Configures the amount of droop allowed from the potable hot water setpoint before activating water heating.	10.0°F to 25.0°F	15.0°F

Unit Manual Operation

Manual Operation mode allows the service technician to manually command operation for operating mode, any of the thermostat outputs, blower speed, as well as pump speed or valve position to aid in troubleshooting. Available data will depend on the unit/model installed.

Manual Setting	Description	Options
Field Test Mode		Enabled, Disabled
Operating Mode[1]	Selects the manual mode of operation.	Standby, Const Fan, Cooling, Heating, Aux Heat, EM Heat, Hot Water, Cooling/HW
Thermostat Outputs[2]	Selects the manual output of the thermostat.	Y1, Y2, W, O, G, H, DH
CV ECM Target Airflow[3]	Configures the target airflow during manual operation.	Range will depend on unit model
CV ECM Blower Speed[3]	Displays current CV ECM motor rpm.	--
Loop Pump Speed	Sets loop pump speed.	0% to 100%. Default - 41%
DHW Pump Speed[1]	Sets DHW pump speed.	0% to 100%. Default - 0%
Compressor Actual Speed[1]	Current compressor speed in rps (revolutions per second).	--

Note 1: Applies to Trilogy only.
Note 2: Applies to Tranquility only.
Note 3: Applies to CV ECM fan motors only.

The ECM Airflow adjustment will not be present if the connected communicating control is not configured for Blower type = ECM.

The Pump Speed adjustment will not be present if the connected communicating control is not configured for Loop Configuration = Pump.

The Valve Position adjustment will not be present if the connected communicating control is not configured for Loop Configuration = Valve.

Clear Fault History

Clear Fault history will clear all fault codes stored in the thermostat as well as the fault history in any connected communicating controls.

Operating Information

The Diagnostics data set allows the service technician to view the real time status of all physical inputs, switches, temperature sensor readings, as well as the operational status of the heat pump from the myUplink mobile app and web portal. Available data will depend on the unit/model installed.

Compressor Diagnostics

Data	Unit	Description
Compressor Current[1]	A	Current compressor amperage.
Compressor DC Voltage[1]	V	Current DC bus voltage from the inverter.
Compressor Heat Sink[1]	F	Current temperature of the inverter heat sink.
Compressor Input Power[1]	W	Current power consumption of the compressor.
Compressor Inverter Current[1]	A	Current amperage draw of the inverter.
Compressor Speed[1]	rps	Current compressor speed.
Unit Capacity[1]	%	Current operating capacity as a percentage of the max capacity.
CC[2]		Compressor contactor output.
CCH[2]		Contactor high speed output.

Note 1: Applies to Trilogy only.
Note 2: Applies to Tranquility only.

Blower Diagnostics

Data	Unit	Description
ECM Blower Power[1]	W	Instantaneous power consumption of the blower.
CV ECM Blower Speed	rpm	Current blower speed.
CV ECM Target Airflow	cfm	Current blower target airflow.
Entering Air Temperature[1]	F	Current temperature of the air entering the unit.
Leaving Air Temperature	F	Current temperature of the air leaving the unit.

Note 1: Applies to Trilogy only.

Loop Diagnostics

Available data will depend on the unit/model installed.

Data	Unit	Description
A1 Analog Output[2]	V	Current voltage output at the configurable analog output.
A2 Analog Output[2]	V	Current voltage output at the configurable analog output.
Entering Water Temperature	F	Current temperature of the water entering the source heat exchanger.
Leaving Water Temperature	F	Current temperature of the water leaving the source heat exchanger.
Loop Pump Feedback	%	Current feedback signal of the loop pump.
Loop Pump Flow Rate	gpm	Current source flow rate.
Loop Pump Power	W	Instantaneous power consumption of the loop pump.
Loop Pump Speed	%	Current speed of the loop pump.
Water Pressure[1]	psi	Current pressure of the water as it leaves the source heat exchanger.

Note 1: Applies to Trilogy only.
Note 2: Applies to Tranquility only.

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Refrigerant Diagnostics

Data	Unit	Description
Air Coil Liquid Temperature	F	Current temperature of the refrigerant liquid line between the air coil and the electronic expansion valve.
Air Coil Vapor Temperature[1]	F	Current temperature of the refrigerant vapor line between the heat/cool reversing valve and the air coil.
Compressor Discharge Pressure[1]	psi	Current refrigerant discharge pressure.
Compressor Discharge Saturation Temperature[1]	F	Current saturation temperature of the refrigerant discharge pressure.
Compressor Discharge Superheat Temperature[1]	F	Current calculation of superheat temperature at the discharge of the compressor.
Compressor Discharge Temperature	F	Current temperature of the compressor discharge line.
Compressor Subcool Temperature[1]	F	Current calculation of subcool temperature at the liquid line of the compressor.
Compressor Suction Pressure[1]	psi	Current refrigerant suction pressure.
Compressor Suction Saturation Temperature[1]	F	Current saturation temperature of the refrigerant suction pressure.
Compressor Suction Superheat Temperature[1]	F	Current calculation of superheat at the suction to the compressor.
Compressor Suction Temperature[1]	F	Current temperature of the compressor suction line.
HW Coil Liquid Temperature[1]	F	Current temperature of the refrigerant liquid line leaving the potable water heat exchanger.
Water Coil Liquid Temperature	F	Current temperature of the refrigerant liquid line between the source heat exchanger and the electronic expansion valve.
Water Coil Vapor Temperature[1]	F	Current temperature of the refrigerant vapor line between the heat/cool reversing valve and the source heat exchanger.

Note 1: Applies to Trilogy only.

Refrigerant Valve Diagnostics (applies to Trilogy units)

Data	Description
RV1 Status (QE models only)	Status of the RV1 (potable water heating) reversing valve.
RV2 Status	Status of the RV2 (heat/cool) reversing valve.
Water Coil EEV1 Status	Status of the heating electronic expansion valve.
Water Coil EEV1 Position	Current position of the heating electronic expansion valve in steps. (0=fully closed, 1040 = fully open)
Air Coil EEV2 Status (QE models only)	Status of the cooling electronic expansion valve.
Air Coil EEV2 Position (QE models only)	Current position of the cooling electronic expansion valve in steps. (0=fully closed, 1040 = fully open)

Miscellaneous Diagnostics

Data	Unit	Description
Cabinet Ambient Temperature	F	Ambient temperature in the unit's compressor section.
Communication Input Status[2] – DH, G, H, NSB, O, OVR, W, Y1, Y2		Status of all communicated inputs from networked controls.
Compressor ASCD Timer Status[2]	sec	Status of the compressor anti-short cycle delay timer.
Control Voltage	V	Unit's control voltage.
External Lockout Flag[2]		Lockout status of network devices.
Heat of Extraction/ Rejection[1]	BTU/H	Current calculation of heat of extraction (heating) or heat of rejection (cooling) to/from the loop depending on mode of operation.
Input Status[2] – ESD, G, H, HP, LP, NSB, O, OVR, W, Y1, Y2, CO		Status of all physical inputs (switches and conventional thermostat).
Output Status – Accessory Relay[2] 1, 2		Status of the configurable accessory relays.
Output Status – AL1[2]		Status of the Alarm relay.
Output Status – EH1, EH2		Status of the electric heat outputs.
Output Status – K1 (Fan, Loop Pump)[2]		Status of fan enable/loop pump relay.
Output Status – K2 (Fan Speed, HWG Pump)[2]		Status of fan speed/hot water generator pump relay.
Output Status[1] – K3, K4, K7		Status of configurable accessory relays.

Note 1: Applies to Trilogy only.
Note 2: Applies to Tranquility only.

Hot Water Diagnostics (If Available)

Data	Unit	Description
Control Voltage	V	Hot water tank's control voltage.
Element Relay Status	--	Status of the hot water element relays.
Hot Water Temperature/ Upper Tank Temperature	F	Current temperature at the upper element of the storage tank.
Lower Tank Temperature	F	Current temperature at the lower element of the storage tank.

<u>Demand Hot Water (DHW) Diagnostics (If Available)</u>

Data	Unit	Description
Hot Water Entering Water Temperature	F	Temperature of the potable hot water entering the potable hot water heat exchanger.
Hot Water Flow Rate	gpm	DHW flow rate.
Hot Water Leaving Water Temperature	F	Temperature of the potable hot water leaving the potable hot water heat exchanger, returning to the iGate Smart Tank.
Hot Water Pump Feedback	%	Current feedback signal from the DHW pump.
Hot Water Pump Power	W	Instantaneous power consumption of the DHW pump.
Hot Water Pump Speed	%	Current speed of the DHW pump.

Fault History

Fault History stores and displays the five most recent fault or warning codes for the connected communicating control.

NOTIFICATIONS

The AWC Communicating Thermostat can generate alerts if the temperature in the home goes over or under a pre–programmed level. This protects the home from damage due to freezing and/or excessive heat.

Alert/Fault information, along with optional technician contact information will be displayed on the thermostat display. If the homeowner registers the thermostat, the alert will be emailed, notification sent in the mobile application, and be displayed in the web portal.

Alert	Condition
ID Temp Sensor High	Indoor temperature reading > 122°F
ID Temp Sensor Low	• Indoor temperature reading <= 0°F • Indoor temperature reading not available
Remote Sensor High	Remote temperature reading > 122°F
Remote Sensor Low	Remote temperature reading <= 0°F
Hum Temp Sensor High	Humidity temperature reading > 122°F
Hum Temp Sensor Low	Humidity temperature reading <= 0°F
ID Temp Range High	Indoor Temperature reading > 99°F
ID Temp Range Low	Temperature reading < 40°F
Hum Sensor Failure	• Humidity sensor timed out • Humidity reading is > 99% • Humidity reading is 0%
Humidity Range High	Humidity reading > 90%
Humidity Range Low	Humidity reading < 10%
Outdoor Sensor Failure	• Outdoor temperature reading > 127°F • Outdoor temperature reading < -60°F

SEND INVITATION TO LINK THERMOSTAT TO MYUPLINK PRO ACCOUNT

To ensure an on–going service relationship with your customer, link the AWC Communicating Thermostat to your myUplink PRO portal.

NOTE: Ensure your mobile device is updated before proceeding. myUplink is supported on the latest version of Android, iOS, and the last two major versions of each operating system. Some older devices and operating systems may not be supported.

From your myUplink PRO app:

1. Ensure the thermostat is connected to the user's Wi-Fi network (reference the User's Quick Start Guide if needed).
2. From the Systems screen, select the green "add" button on the top right.
3. Select the "Request access" button.
4. Enter the homeowners email address that is associated with their myUplink account, enter the name of the system (optional) and select the green "Request Access" button.
5. User will receive invitation via email to accept your link request.
6. You will receive email notification upon approval to link from the user.

Linking a device requires the device to be linked to the user's myUplink account. Reference the user's quick start guide for additional information. myUplink PRO account holder will be charged a monthly fee for each thermostat linked to their account.

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Revision History

Date:	Description:	Page #:
07/25/2023	Clarified capabilities of different scheduling tools	5
10/03/2023	Corrected dimension specifications and clarified operating system support for mobile devices	3,15
12/09/2022	Clarified which sections are applicable to different product lines and product options	All
10/18/2022	Added configuration settings and diagnostic data for tranquility units	All
12/20/21	Clarified thermostat connection picture and updated settings/configuration tables	4, 8-13
12/03/21	Created	

Intertek

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