

iGate[®] ClimaZone Zoning Panel

Installation, Configuration Manual 97B0117N03

Revised: December 19, 2023





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.

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Decoder



Introduction

iGate[®] ClimaZone Overview

Why Zoning

A HVAC zoning system is designed to improve occupant comfort and system efficiency. Heating and cooling loads typically vary throughout areas or zones of a home during different times of the day and year. Occupants of the home may also have differing comfort levels requiring unique zone temperatures setpoints. A zoning system allows a single unit to be controlled by multiple thermostats thus conditioning smaller zones of the home instead of the entire space as a large single zone. This can make the home more comfortable and improve the HVAC system efficiency by distributing conditioned air only to the zones needed, eliminating over cooling and heating of the satisfied areas.

Features of iGate® ClimaZone

- Designed for use with ClimateMaster Trilogy systems.
- Compatible with new and existing systems.
- Accommodates up to six zones with a single zone panel or up to twelve zones with two zone panels.
- Each zone may have up to 3 dampers.
- An iGate[®] 2 Communicating (AWC) Thermostat is used to control each zone and provides internet-connected communications.
- System configuration and diagnostics available via ClimateMaster Trilogy PC Service Tool.

Zoning System Components

- iGate[®] ClimaZone Zone Panel – one or two per system.
- iGate[®] 2 Communicating (AWC) Thermostat – one per zone.
- Zone Damper up to three per zone.
- Transformer for damper and thermostat power.
- Trilogy PC Service Tool for system configuration and diagnosis. Contains software and cables. Software installs on a PC/laptop then the PC is connected to the iGate[®] ClimaZone panel using the cables.

Component Part Numbers

Description	Part Number
iGate [®] ClimaZone Zone Panel	AZC06CAR
iGate [®] 2 Communicating (AWC) Thermostat	AWC99U01
Zone Damper	Field Supplied
Transformer 75 VA 24 VAC	ATRANS075
Trilogy PC Service Tool	ASVCTOOL01

All Components Purchased Separately

Introduction

Specifications

Power Supply

The zone panel is a 24 VAC device and is powered by the Trilogy unit. This zone control board current draw is 8.5 VA max. The zone dampers and zone thermostats require a separate 24 VAC Class 2 transformer, (see page 9 for damper and thermostat loads).

Wiring

Wire Gauge -	18 AWG	20 AWG	22 AWG
Maximum Total Length -	128 ft (38 m)	80 ft (24 m)	50 ft (15 m

Ambient Temperature/Humidity Parameters

Operating -40°F to 176°F (80°C) Storage -40°F to 185°F (85°C) 5% to 95% RH non-condensing

Dimensions

12" width x 12" height x 2.25" depth

Mounting

Screw holes provided on enclosure for either wall or stud mounting with installer-supplied fasteners.

Zone Thermostats

An iGate® 2 Communicating Thermostat is required for each zone.

Zone Dampers

24 VAC 3-wire power open/close type dampers required. Field supplied.

System Considerations

Ducting

To ensure quiet efficient system operation, select duct type and size that will provide air flow and velocities as recommended in ACCA Manual D.

Zone Dampers

All dampers on the system Must have similar open times in order for the system to operate correctly. The individual damper timings must all be within 5 seconds of one another for the average to be accurate.

Installation

Safety Considerations

Improper wiring or installation may damage the equipment. Wiring must conform to all local and national electrical codes.

WARNING! 🛕

WARNING! Before installing zone panel and related components turn off all power to the unit. There may be more than one power disconnect. Electrical shock can cause personal injury or death.

Mounting the Zone Panel

The iGate® ClimaZone panel must be installed indoors. Field wiring may enter the panel from above, below, or behind. Choose a location that allows sufficient room for wiring and service. Keyhole slots are provided on the panel base plate for stud or wall mounting. Two screws is sufficient for stud mounting, use four screws/anchors for drywall installation. Remove the panel cover and use the base as a template to mark or drill the mounting hole locations. Attach the base with the appropriate fasteners (field supplied).



Wiring the Zone Panel to the Trilogy Unit

Wire the panel to the Trilogy unit as shown on the enclosed wiring diagram (also see page 17).



Installation

When two zone panels are used (for seven to twelve zones) the zone boards are to be connected in a master/ slave arrangement as shown on the enclosed wiring diagram (also see page 17).



Installing the Zone Dampers

Zone dampers are field supplied and must be 24 VAC 3-wire power open/close type. To ensure quiet, efficient system operation, select duct type and size that will provide air flow and velocities as recommended in ACCA Manual D. Install dampers per the instructions supplied with dampers and wire to zone panel as indicated on the enclosed diagram (also see page 17). Up to 3 dampers may be wired in parallel. After making wiring connections, confirm that none of the conductors are in contact with each other. The Maximum recommended wire strip length is 0.25 inches (6 mm)



Installing the Zone Thermostats

Select mounting locations and install thermostats per the thermostat installation instructions that are supplied with them. Connect thermostat wiring to the zone panel as indicated on the enclosed wiring diagram (also see page 17). After making wiring connections, confirm that none of the conductors are in contact with each other. The Maximum recommended wire strip length is 0.25 inches (6 mm).



Installation

Selecting the Zone Damper/Thermostat Transformer

The transformer size will depend on the power requirements of the connected dampers and thermostats. Allow 1.5 VA for each iGate® 2 Communicating (AWC) Thermostat then add for each damper. Typical dampers are rated at 3 VA but this must be confirmed by the damper provider.

Transformer size Examples

Zones @ 1.5 VA/t-stat	Dampers @ 3 VA/damper	VA requirement
6 zone t-stats = 9 VA	6 zone dampers = 18 VA	total = 27 VA
6 zone t-stats = 9 VA	12 zone dampers = 36 VA	total = 45 VA
9 zone t-stats = 13.5 VA	24 zone dampers = 81 VA	total = 94.5 VA

Confirm damper VA with damper supplier

Installing the Zone Damper/Thermostat Transformer

A transformer is required for powering the zone dampers and thermostats. Ensure that this separate transformer is large enough to power all of system dampers and thermostats. Install the transformer and wire per the enclosed wiring diagram (see page 17).

myUplink PRO

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:

- 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.

Zone Configuration





Configuration Setting	Description	Range/ Options	Default
Device List Update	Toggle option to initiate the discovery of zone thermostats on the system.	Enabled, Disabled	Disabled
Whole House Control Mode	Configures the zoning system to operate as a non-zoned application. All dampers will be opened, and Zone 1 thermostat will be used for temperature and humidity control.	Enabled, Disabled	Disabled
Damper Type	Configures damper type for the zoning system.	Power Open/Close	Power Open/ Close
Zone Priority	The zone priority is only used for zones have opposing demands (heating vs. cooling). We recommend leaving all of these at medium. The zone sizes are used in conjunction with deviation from setpoint to determine priority.	Low, Medium, High	Medium
Zone Size	Set the Zone Size (CFM) determined for each zone per the manual J/D calculation.	Range for the airflow settings will depend on model and capacity selection.	25 CFM
Damper Open Time	Configures the time required to fully open/close the damper actuator.	15-120 sec, 5 sec increments	30 sec
Zone Name	Identify each zone with a unique name.	15 characters	Zone #

Note: Setting any Zone priority to HIGH will, effectively, shut down hot water production. This is due to space conditioning prioritization.

4.1 - Zoning Co	onfiguration		Send to Group
Device List Update			
Whole House Control Mo	de		
Disabled			
Enabled			
Damper Type			
Spring Open/Close	e		
Power Open/Close	e		
Zone 1 Priority			
Low			
Medium			
🔵 High			
Zone 2 Priority			
Low			
Medium			
🔵 High			
Zone 1 Size:			
-	750cfm	+	
Zone 2 Size:			
-	500cfm	+	
Damper Open Time:			
-	40s	+	
SOUTH			
Zone 2 Name NORTH			

Device List Update

The zone panel will automatically recognize the addition of a thermostat zone. However, the system will not recognize the removal or movement of a zone. If a zone thermostat is removed, or is moved to a different zone tap, the panel must be updated by pressing the **Device List Update** toggle.

Damper Timing

Damper timing must be set for the zone panel to properly open and close the dampers for each zone. To determine damper time activate **Unit Manual Operation** mode and open (100%) or close (0%) a damper, timing it with a stopwatch, to get the actual time it takes to fully actuate the damper.

All dampers on the system **MUST** have similar open times for the system to operate correctly. The individual damper timings must all be within 5 seconds of one another for the average to be accurate. Systems with dampers that have open timings of more than 5 seconds apart will cause the system to operate inefficiently through excess duct leakage or inadequate air flow.

Once the dampers have been timed, the timing value must be set in the **Zone Configuration** menu. Take the average of the damper timings and input the closest value into the Damper Open Time option. The Damper Open Time option allows the technician to choose values in 5 second increments. The average of the damper times should be rounded up, i.e., if the average of the damper times is 34 seconds, the technician will choose 35 seconds in the **Damper Open Time** option.

Manual Operating Mode

2.2 - Unit Manual Operation	Send to Group
Manual Operating Mode	
Standby	
O Heat	
Cooling	
Cooling & Hot Water	
Hot Water	
Field Test Mode	
Disabled	
Enabled	
ECM Target Alflow: - 290cfm +	
Loop Pump Speed:	
Hot Water Pump Speed.	
Zone 1 Damper Position:	100
0	100
Zone 2 Damper Position:	100
0	100
Compressor Actual Speed 27 rps	
ECM Blower Speed 450 rpm	
Back	

Zoning Status

The actual temperature and setpoint values for each zone are listed in the respective Zone Diagnostics grouping found in the Status tab.



Expanding the Zone Diagnostics group will display all the diagnostic data for the corresponding zone.

 4.2.1 - Zone Diagnostics - SOUTH 	
Zone 1 Cool Setpoint:	76 °F
Zone 1 Damper Position:	0 %
Zone 1 Dehumidification Setpoint:	65 %RH
Zone 1 Heat Setpoint:	68 °F
Zone 1 Humidification Setpoint:	15 %RH
Zone 1 Humidity:	34 %RH
Zone 1 Name:	SOUTH
Zone 1 Priority:	Medium
Zone 1 Size:	750 cfm
Zone 1 System Mode:	Auto
Zone 1 Temperature:	69 °F

PC Service Tool

The ClimateMaster Trilogy PC Service Tool can be used for zoning system configuration. This tool is available in a kit containing the service tool software, a 5-foot cable for connecting the PC to the zone panel or Trilogy unit and a USB-CM adapter cord. If using this tool for the first time, install it on the computer per the instructions contained in the kit then return to this document for zoning configuration instructions.

Zoning may be used with any Trilogy system that contains EXM board firmware version 2.00 or later. Any EXM board with an earlier version may be updated using the Bootloader portion of the PC Service Tool and by downloading the update from the GeoElite Trilogy website. Bootloader user instructions are contained later in this manual and in the PC Service Tool manual. The PC Service Tool may be connected to the unit EXM board, the zone panel ZXM board or the Smart Tank WXM board, whichever is most convenient.



ASVCTOOL01

Connect the 5 ft cable to either the ZXM MAIN port or the EXM STAT port, whichever is most convenient. Connect the USB-CM adapter cable (dongle) to a USB port on your computer. DO NOT connect these cables together at this time.

NOTE: The connection order is very important. You might experience unintended issues if these are not followed.

Open the Service tool software and click on the service tool button.



Locate the COM Port selection in the upper-right corner of the application and use the drop-down list to select the COM port of the dongle. Then choose Open.



After the COM port opens successfully, connect the cable to the dongle. If you notice "Communications Error" on the status bar flashing red, ignore this until the cables are connected together.

When the COM port opens AND the cables are connected together, green and red indicators will appear.



The Service tool will begin downloading the initial data. The information bar at the bottom of the application will display this information. The left section will blink yellow while the initial download is active. This takes approximately 30-45 seconds. Once it has completed, the information bar will display, "Ready." Be patient while the information is downloading. Proceeding through tabs or buttons before the information is completely downloaded will display 0 values, but will update as the information is populated.



The Navigation buttons will allow you to view and change different aspects of the unit operation and function. Refer to the Trilogy PC Service Tool instruction set for further details of these.

Verify EXM Version

Verify the firmware version of the EXM board by selecting the diagnostics button then the miscellaneous tab. This board contains two microchip processors and both must be, at a minimum, version 2.00. If the version is 1.xx an update is required using the Bootloader portion of the PC Service Tool. Refer to the Bootloader instructions contained later in this manual or in the Trilogy PC Service Tool instructions for further information.



Zone Configuration

Select the Settings button, and then choose the Zone Config tab.



Set the Zone Size (CFM) determined for each zone per the manual J/D calculation

NOTE: The system will activate emergency heat operation when any zone has active emergency heating demand. The system will bleed the necessary excess airflow to all remaining zones in heating mode. The ZXM will deactivate emergency heat operation when active heating demands are satisfied. Zones may be indirectly over-conditioned as a result of receiving demand for excess airflow bleeding. The zone priority is only used for zones have opposing demands (heating vs. cooling). We recommend leaving all of these at medium. The zone sizes are used in conjunction with deviation from setpoint to determine priority.

NOTE: Setting any Zone priority to HIGH will shut down hot water production. This is due to space prioritization.

The zone panel will automatically recognize the addition of a thermostat zone. However, the system will not recognize the removal or movement of a zone. If a zone is removed, or is moved to a different zone tap, the panel must be updated by pressing the **Device List Update** button in order for the new zone configuration to be updated and saved.

📤 Trilogy Ser	rvice Tool v2.0.1							-		×
File Go To	Help									
	70 °	s	ystem Mode: Current Mode:	Off Standby		DHW Mode: Off DHW SP: 122°	F		COM3 O	pen
н	umidity 50%	Hu Op	Fan Mode: midity Mode: perating Cap:	Auto Dehumid 0%		ZXM Fault: No F	aults		Open	1
Diagnostics	Settings	Fault H1	Fault	12	Fault H3	Fault H4	Fault	-15	System	Flow
Equipment	Thresholds Config	Service Mode	Zone Config							
Zone Name	e, Size and Weight NAM	E	SIZE	PRIO	RITY					
Zone 1		MAIN HOUSE	750	Mediu	m ~	Damper T	ype P	ower O/	c v	
Zone 2		MASTER BED	250	Mediu	m ~	Home Control M	lode Za	oned	~	
Zone 3	*******	www.www	0		~	Damper Open 1	ime 35	5	١	secs
Zone 4	*******	www.www	0		~	Device	List	Upd	ate	
Zone 5	*******	www.www	0		\sim	Updated	DL@ 2:4	3:34 PM	_	
Zone 6	*******	www.www	0		~					
Zone 7	*******	www.www	0		\sim					
Zone 8	********	www.www	0		\sim					
Zone 9	*******	www.www	0		\sim					
Zone 10	********	www.www	0		~					
Zone 11	********	www.www	0		~					
Zone 12	www.www.ww	······	0		~					
🗰 Ready		Serv	vice Mode Inacti	ive		Settings (Read/Write)			3:02:0	2 PM

Damper Timing

Damper timing must be set in order for the zone panel to properly open and close the dampers for each zone. To determine damper time activate **Service Mode** and open or close a damper, timing it with a stopwatch, to get the actual time it takes to fully actuate the damper.

All dampers on the system **MUST** have similar open times in order for the system to operate correctly. The individual damper timings must all be within 5 seconds of one another for the average to be accurate.

Systems with dampers that have open timings of more than 5 seconds apart will cause the system to operate inefficiently through excess duct leakage or inadequate air flow.



Once the dampers have been timed, the timing value must be set in the Zone Config tab. Take the average of the damper timings and input the closest value into the Damper Open Time box. The Damper Open Time box allows the technician to choose values in 5 second increments. The average of the damper times should be rounded up, i.e., if the average of the damper times is 34 seconds, the technician will choose 35 seconds in the Damper Open Time box.

File Go To	Help										
	72 °	S C Hu Oj	ystem Mode: Current Mode: Fan Mode: midity Mode: perating Cap:	Off Standby Auto Dehumic 0%	I.	DHW Mode: Off DHW SP: 122 ZXM Fault: No	"F Faults		COM3 O COM3 Oper Close		
Diagnostics	Settings	Fault H1	Fault H	-12	Fault H3	Fault H4	Fa	ult H5	System	n Flov	
quipment 1	Thresholds Config	Service Mode	Zone Config								
Zone Name	e, Size and Weight NAM	E	SIZE	PRIC	RITY						
Zone 1	MAIN HOUSE		750	Mediu	m ~	Damper Type Power			r O/C ~		
Zone 2		MASTER BED		Mediu	m ~	Home Control Mode Zoned			~	~	
Zone 3	*******	www.www	0		\sim	Damper Open	Time	35	÷	secs	
Zone 4	*******	www.www	0		\sim	Devic	e List	Up	date		
Zone 5	********	www.www	0		\sim	Update	el.	1 PI	a l		
Zone 6	********	www.www	0		\sim	_					
Zone 7	********	www.www	0		~						
Zone 8	~~~~~~	www.www	0		\sim						
Zone 9	********	www.www	0		~						
Zone 10	********	www.www	0		\sim						
Zone 11	********	www.www	0		~						
Zone 12	********	www.www	0		~						

Humidification Control

If a humidifier is added to the Trilogy system, each zone thermostat must have the humidifier option enabled where humidity control is wanted. The humidifier will be activated based on the zone with the highest demand for humidification.



Temperature Display

Zoning uses a complex algorithm to determine the unit capacity and zone priority. The values provided in the top-left portion of the service tool typically show the actual space temperature, humidity, heating and cooling setpoints for a non-zoned system. Using the zone panel will modify the values displayed in the service tool. The technician may notice that the space temperature value in the service tool does not accurately reflect any of the zone temperatures and will change based on the individual zone setpoints, not the space temperatures. Likewise, the setpoints will not reflect any individual zone setpoint and will not change. These values are used in the algorithm to determine the operating capacity of the unit. The actual temperature and setpoint values for each zone are listed in the Zoning tab.

Trilogy Service Tool v2.0.1								-		×
<u>F</u> ile <u>G</u> o To <u>H</u> elp										
Humidity 50%	73° 70°	System Current Fan Humidity Operatir	Mode: Auto Mode: Star Mode: Auto Mode: Def ng Cap: 0%	o ndby o numid.	D :	HW Mode: DHW SP: ZXM Fault:	Off 122'F No Faults		COM3 Open COM3 Open Close	oen V
Diagnostics Settings	Fai	ult H1	Fault H2	Fau	It H3	Fault H4	Fault	H5	System	Flow
Main Com M	iscellaneo	us Configur	ation Fault	Zoning						
Zoning Data	Pos (%)	Temp (°F)	Ht SP (F)	CI SP (F)	RH (%)	RH SP(%)	Deh SP (%)	Mode	Fan M	lode
MAIN HOUSE	25	69.1	68.0	81.0	24	40	45	Auto	Au	ito
MASTER BED	100	71.0	62.0	85.0	24	40	60	Auto	Au	ito
Zone 3	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 4	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 5	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 6	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 7	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 8	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 9	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 10	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 11	NA	NA	NA	NA	NA	NA	NA	NA	N	A
Zone 12	NA	NA	NA	NA	NA	NA	NA	NA	N	A
🗰 Ready		Service Mo	de Inactive		Dia	anostics (Read	only)		3:08:0	9 PM

Status and Fault Information

ZXM Board LED Information

Status LED Information-Green

Flash Type	Description	
On	Normal operation	
Off	Control is non-operational	
Fast	Control is in non-zoning mode	

Fault LED Information-Red

Flash Type	Description	
Off	Normal operation	
Slow	Control has an active alert	
Fast	Control is locked out	

Fast Flash= 0.3 seconds on, 0.3 seconds off Slow Flash= 1 second on, 1 second off

Zone thermostats / Main COM LED Information-Amber

Flash Type	Description
Off	Control is non-operational
Slow	Zone Stat is connected

Zone Damper LED Information-Green

Flash Type	Description
Off	Damper is fully closed
Slow	Damper is partially open
Fast	Damper is opening/closing
On	Damper is fully open

ZXM Board Test Mode Fault Codes

Enter and exit test mode by momentarily pushing the ZXM board test button. Push for more than 1/2 second and less than 5 seconds. In test mode the fault LED will fast flash the active fault. Fault code flashes have a duration of 0.3 seconds on, 0.3 seconds off with a 10 second pause between fault codes. For example, a "Loss of ZXM Communications" fault will be four flashes 0.3 seconds on 0.3 seconds off, then a 10 second pause, then four flashes again, etc.

ZXM Board Fault LED Number of Flashes	PC Service Tool System Fault Code	Fault Name	Possible Causes
1	0 or 1	No fault	N/A
2	200	No zone damper power	Faulty input voltage Faulty damper power wiring
3	202	Loss of thermostat Communications	Faulty wiring from ZXM to thermostat Faulty thermostat Faulty ZXM
4	203	Loss of ZXM Communications	Faulty wiring from ZXM to EXM Faulty EXM Faulty ZXM
5	204	Loss of EXM Communications	Faulty wiring from ZXM to EXM Faulty EXM Faulty ZXM
6	17	Space temperature power	Thermostat wiring Faulty thermostat
7	18	Space humidity sensor	Thermostat wiring Faulty thermostat
None	201	Thermostat configuration error	ZXM detected with thermostat Incorrect thermostat wiring at EXM
None	205	ZXM configuration error	Multiple ZXMs detected at EXM Incorrect ZXM wiring at EXM

Status and Fault Information

Troubleshooting

Condition	LED state	Possible Causes	Solutions
			Check the wiring between the ZXM and EXM controls.
			Check the EXM controls.
		Loop of ZVM Communications	Check the wiring between the ZXM and EXM controls.
		Loss of ZXW Communications	Check the ZXM controls.
		Loss of Thermostat	Check the wiring to all zone thermostats.
All Zone Dampers are open and	STATUS I FD - Fast flash	Communications	Check all zone thermostats.
the system is not operating	FAULT LED - Fast flash		Check the wiring between the ZXM and EXM.
		ZXM Configuration Error	If multiple ZXMs are connected, check the wiring of the slave ZXM.
			Check the input voltage at both ZXM controls.
		No Zone Damper Power	Check the damper power wiring to both ZXM controls.
		No zone Damper Power	Check continuity of the fuse (remove from circuit and measure resistance).
All Zone Dampers are open and the system is operating	STATUS LED - Fast flash FAULT LED - Slow flash	Loss of ZXM Communications	Check the wiring between master and slave ZXM controls.
		Loss of Thermostat Communications	Check the wiring to all zone thermostats.
			Check all zone thermostats.
		No Zono Domnor Power	Check the input voltage at both ZXM controls.
			Check the damper power wiring to both ZXM controls.
			Check the input voltage.
All Zone Dampers are closed	STATUS LED - Fast flash FAULT LED - Fast flash	No Zone Damper Power	Check the damper power wiring.
			Check continuity of the fuse (remove from circuit and measure resistance).
One zone remains open continuously	STATUS LED - Fast flash FAULT LED - Fast flash	A damper is wired without a corresponding zone thermostat	Check the wiring at the ZXM controls.
Only a select number of zones are open, but they operate at the same time, pot individually	STATUS LED - Fast flash FAULT LED - Slow flash	Loss of ZXM Communications	Check the wiring between ZXM controls.
	STATUS LED - Fast flash	No Zono Domnor Power	Check the input voltage at both ZXM controls.
the same time, not individually	FAULT LED - Fast flash		Check the damper power wiring to both ZXM controls.

Wiring Diagram



Bootloader Instructions

As alterations and/or enhancements to the EXM, ZXM and WXM functionality are made, there may be occasional updates to the firmware on the board. Bootloader allows a technician to update the board's firmware rather than replacing the board.

Notifications of any updates would be sent via a Technical Service Bulletin and updates would be available for download from the GeoElite Trilogy website. These updates come in the form of a HEX file.

Save the HEX file(s) to a location easily found (such as the desktop or a Bootloader folder created in the My Documents folder). Once the HEX file(s) have been downloaded, open the Service tool software and click on the Bootloader button.



Or, from the Service Tool screen, choose "Go To" from the menu bar and then choose "Bootloader".



The Bootloader program requires the EXM to be placed into "Slave" mode before it will connect. You will need to flip DIP Switch 1 to the OFF position while using Bootloader;



NOTE: Make sure to return the DIP switch to the ON position when you've finished using Bootloader or the unit will not operate.

Bootloader Instructions

Connect the cable and dongle together and connect to the EXM STAT port and insert the dongle into the USB port.

Locate the COM Port selection in the upper-right corner of the application and use the drop-down list to select the COM port of the dongle. Then choose open.

 Trilogy Bootloader v2.0.1 			- 0	×
File Go To Help				
Control Available U1 V Available U2 V Control's U1 V Control's U2 V	Board fersion: fersion: fersion: fersion: Cancel		COM port 13 V Dpen	
🔥 Open COM port	Open a Hex file	Bootloader	6	:34:20 AM

The Red and Green indicators will appear when communication is established (similar to the Service Tool).

At this point, you will need to locate the HEX file(s). To update the EXM, there will be two HEX files; EXM_U1_vXXX.hex and EXM_U2_vXXX.hex. These files are for each of the microprocessors on the EXM board. Go to "File" then "Open EXM U1" and locate the HEX files, choose the EXM_U1_vXXX and click Open.



Go back to "File" then "Open EXM U2", choose the EXM_U2_vXXX and click Open.

Both versions should be displayed on the Bootloader screen.

Service Trilogy Bootloader v2.0.1		-	-	×
File Go To Help				
EX Available U1 \ Available U2 \ Control's U1 \ Control's U2 \	M Version: 2.0 Version: 2.0 Version:	Open C COM3 Op Clo	oM port	
Update Control	Cancel			
🔥 Open COM port	EXM files open	Bootloader	6:37:3	31 AM

Choose Update Control. Status will be displayed during update. The update typically takes about 4 minutes for the EXM.

Trilogy Bootloader v2.0.1			-		X
File Go To Help					
EX Available U1 V Available U2 V Control's U1 V Control's U2 V Updating U1 Update Control 2% complete.	M fersion: 2.0 fersion: 2.0 fersion: 1.7 fersion: 1.7		COM3 Op COM3 Oper Close	en,	
🖷 Busy	EXM files open	Bo	ootloader	7:10:03 A	M

Bootloader Instructions

When the update completes, the COM port will close automatically. At this point, if you have completed the download process, **MAKE SURE to flip DIP Switch 1 back to the ON position.**

To update the ZXM, there will be one file, ZXM_U1_vXXX.hex, but the process is similar. Choose "File" then "Open ZXM" select the appropriate HEX file and perform the update. The ZXM update will typically only take about 60 seconds.

To update the WXM, there will be one file, WXM_U1_vXXX.hex, but the process is similar. Choose "File" then "Open WXM" select the appropriate HEX file and perform the update. The WXM update will typically only take about 30 seconds.

If, at any point during the update process, communications are lost and the update process stalls or fails, cycle power to the board. You should also close and re-open the Trilogy bootloader software and restart the process.

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Revision History

Date	Page #	Description
December 19, 2023	13	Added Note to Zone configuration outlining allocation of airflow under emergency demand conditions.
April 6, 2023	9	Updated the Damper Type options
October 19, 2022	All	Updated to support iGate [®] 2 Communicating (AWC) Thermostat and added myUplink PRO instructions
September 6, 2016	5-7	Update reference to Wiring Diagram
March 3, 2016	8-18	Update PC Service Tool instructions
February 24, 2016	8-18	Added PC Service Tool instructions and Bootloader instructions
January 29, 2016	All	First published





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