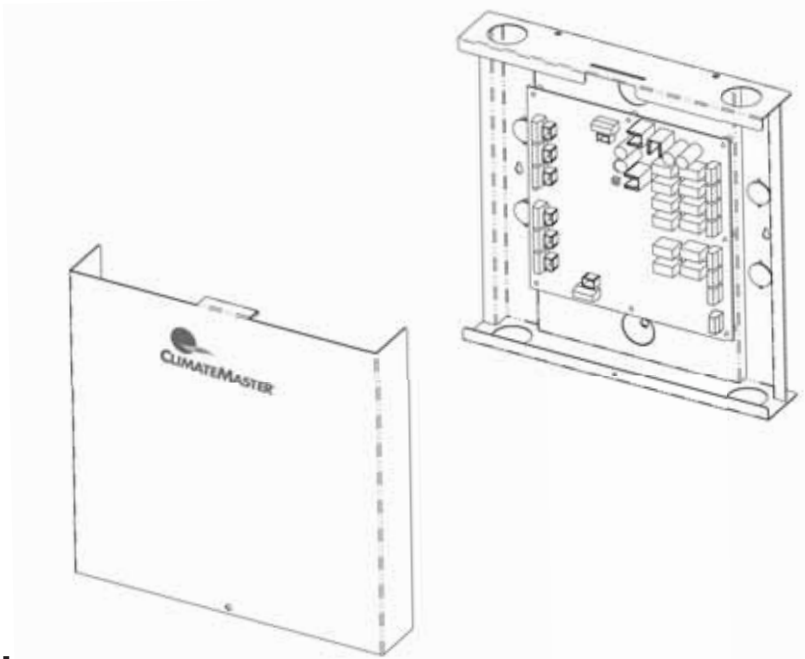


# iGate ClimaZone Zoning Panel

## Installation, Configuration Manual

97B0117N03

Rev: March 3, 2016



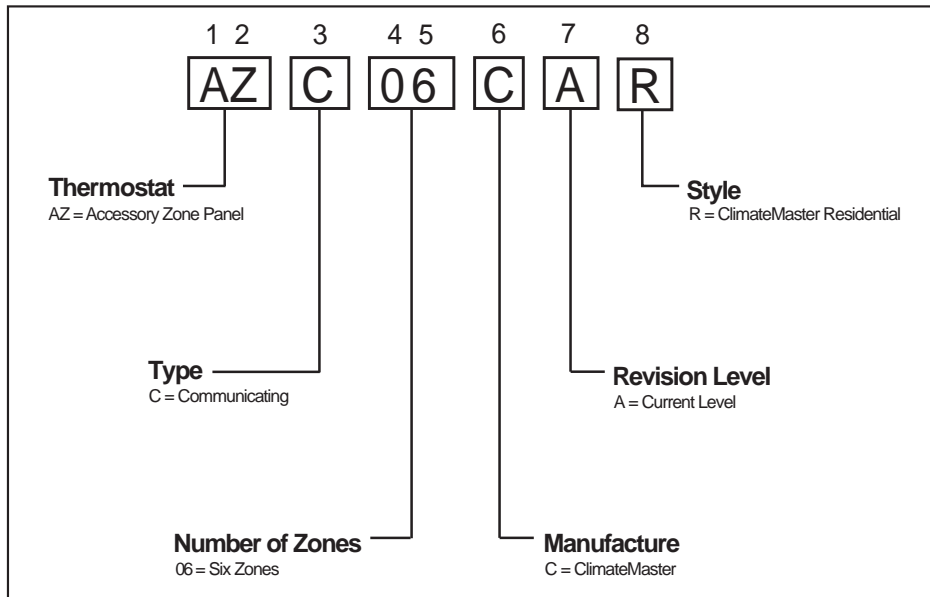
### **Caution!**

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



## 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 Connect 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 Connect 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 Connect Thermostat	AWC99B01R
Zone Damper	Field Supplied
Transformer 75VA 24VAC	ATRANS075
Trilogy PC Service Tool	ASVCTOOL01

All Components Purchased Separately

## 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 7 for damper and thermostat loads).

### Wiring:

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

### Ambient Temperature/Humidity Parameters

Operating -40F to 176F (80°C)  
 Storage -40F to 185F (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 Connect thermostat is required for each zone.

### Zone Dampers

24VAC 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

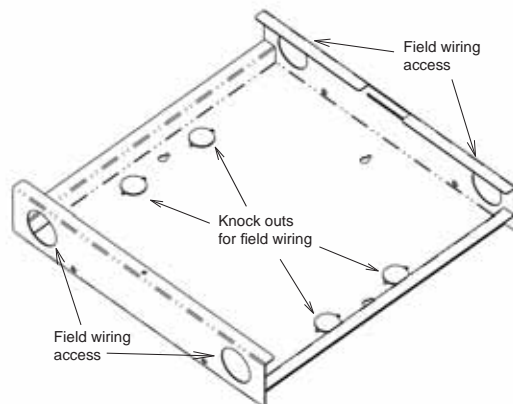
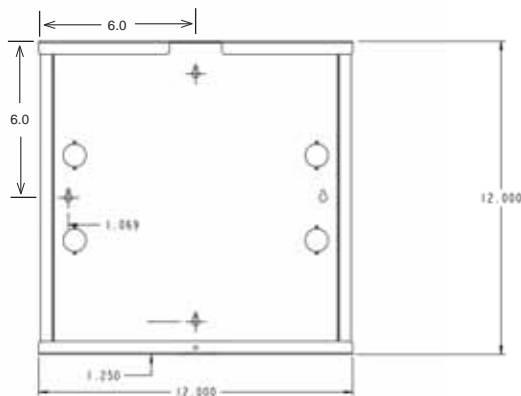
Improper wiring or installation may damage the equipment. Wiring must conform to all local and national electrical codes.

### ⚠ 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.

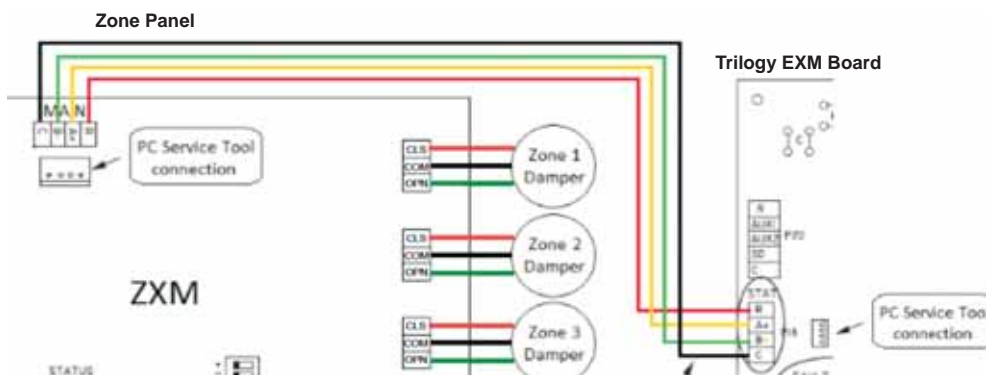
### Mounting the Zone Panel

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).

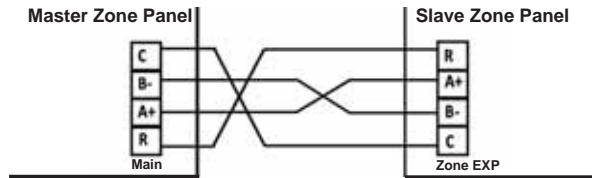


### Wiring the Zone Panel to the Trilogy Unit

Wire the panel to the Trilogy unit as shown on the enclosed wiring diagram (also see page 19).

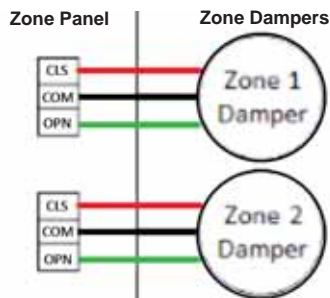


When two zone panels are used (for seven to twelve zones) the zone boards are to be connected in a master/slave arrangement as shown on the enclosed wiring diagram (also see page 11).



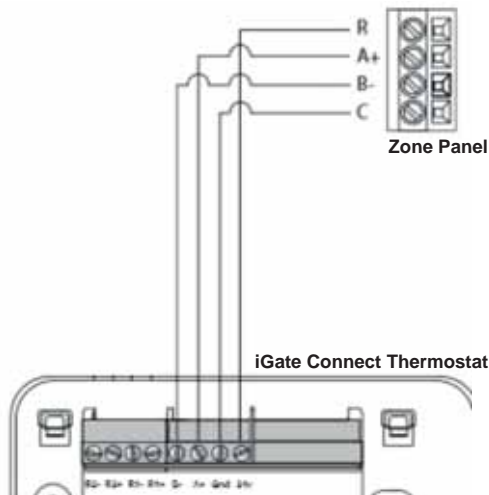
## Installing the Zone Dampers

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 19). 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 .25 " (6mm)



## 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 19 ). After making wiring connections, confirm that none of the conductors are in contact with each other. The Maximum recommended wire strip length is .25 " (6mm)



### Selecting the Zone Damper/Thermostat Transformer

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

#### Transformer size Examples

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

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 19).

## System Configuration

The ClimateMaster Trilogy PC Service Tool is required 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.



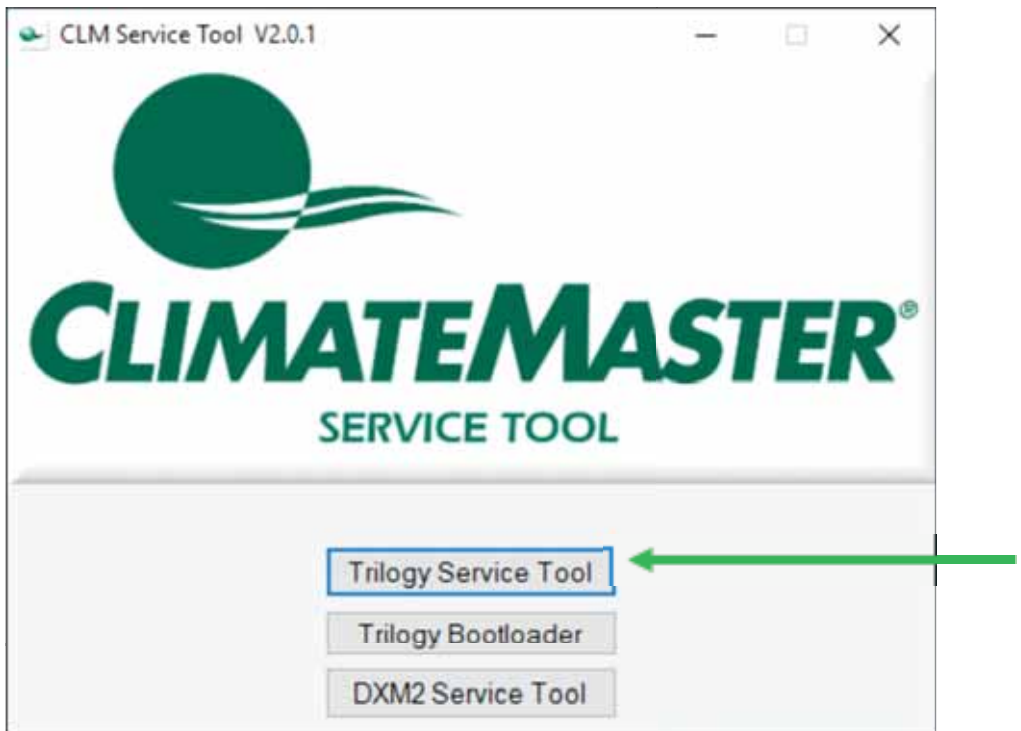
Zoning may be used with any Trilogy system that contains EXM board firmware version 2.00 or later. Any EXM board with an earlier version may be updated using the Bootloader portion of the PC Service Tool and by downloading the update from the GeoElite Trilogy website. Bootloader user instructions are 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.

### Open and start the PC Service Tool software

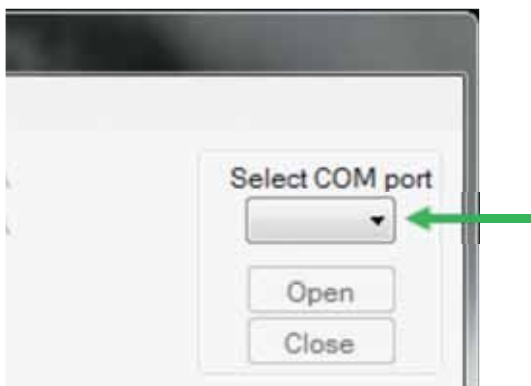
Connect the 5ft cable to either the ZXM MAIN port or the EXM STAT port, whichever is most convenient. Connect the USB-CM adapter cable (dongle) to a USB port on your computer. DO NOT connect these cables together at this time.

**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.



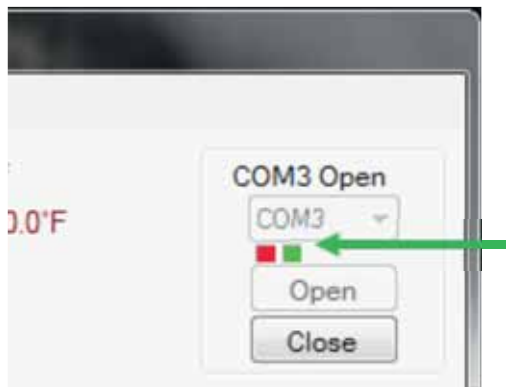
Locate the COM Port selection in the upper-right corner of the application and use the drop-down list to select the COM port of the dongle. Then choose Open.



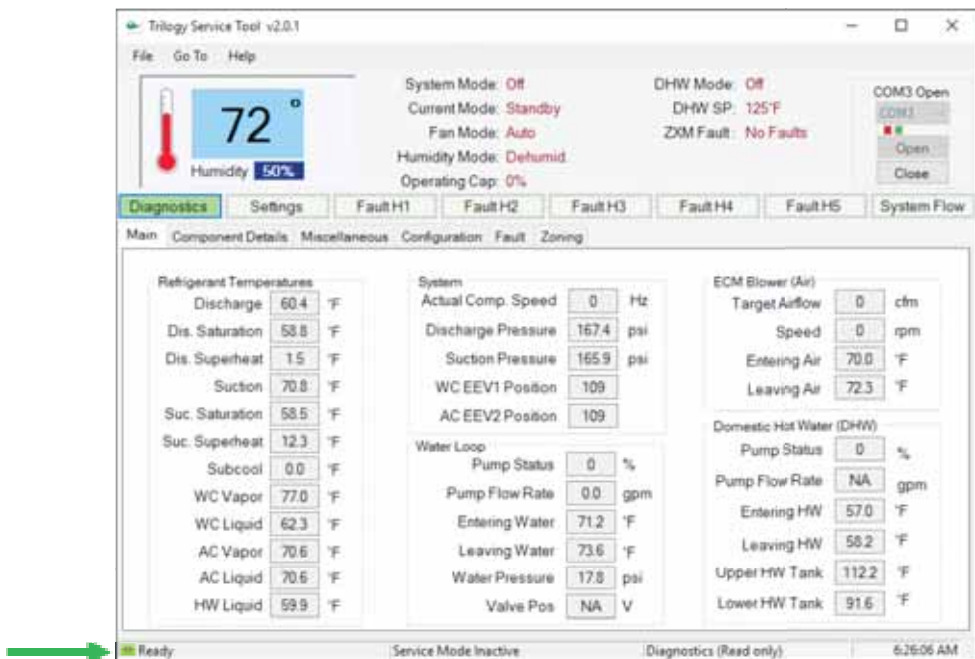


After the COM port opens successfully, connect the cable to the dongle. If you notice “Communications Error” on the status bar flashing red, ignore this until the cables are connected together.

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



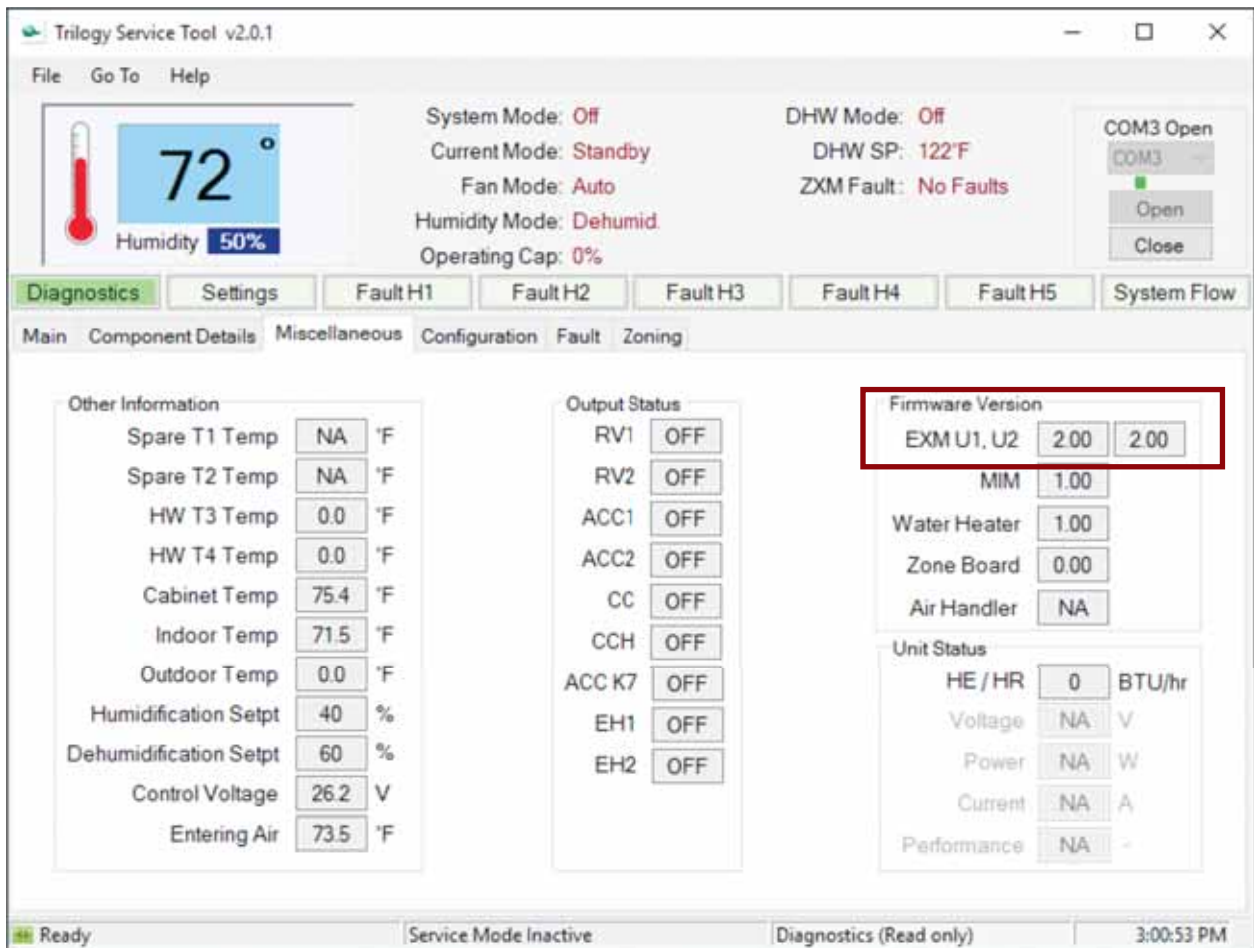
The Service tool will begin downloading the initial data. The information bar at the bottom of the application will display this information. The left section will blink yellow while the initial download is active. This takes approximately 30-45 seconds. Once it has completed, the information bar will 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 Trilogi PC Service Tool instruction set for further details of these.

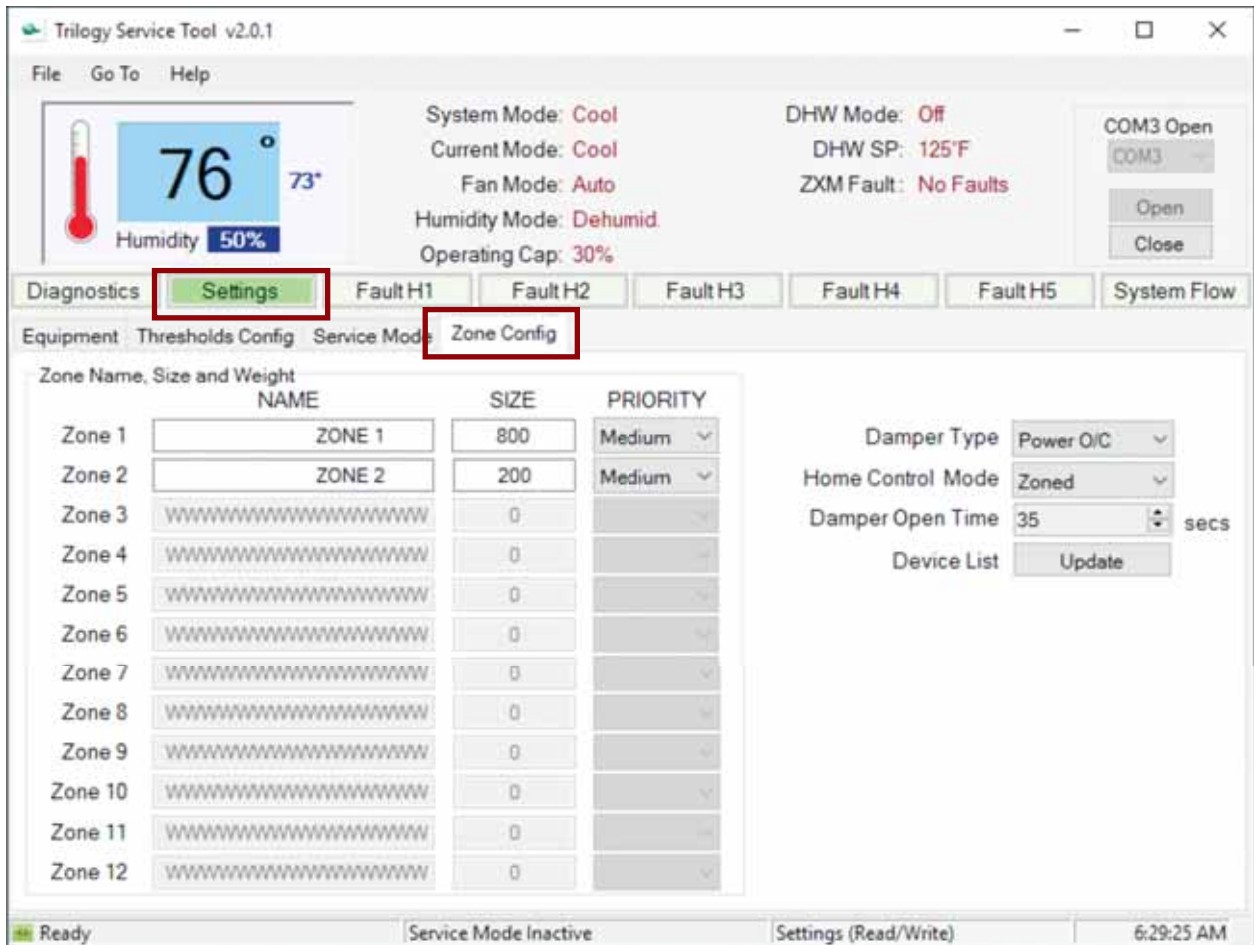
### Verify EXM Version

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;

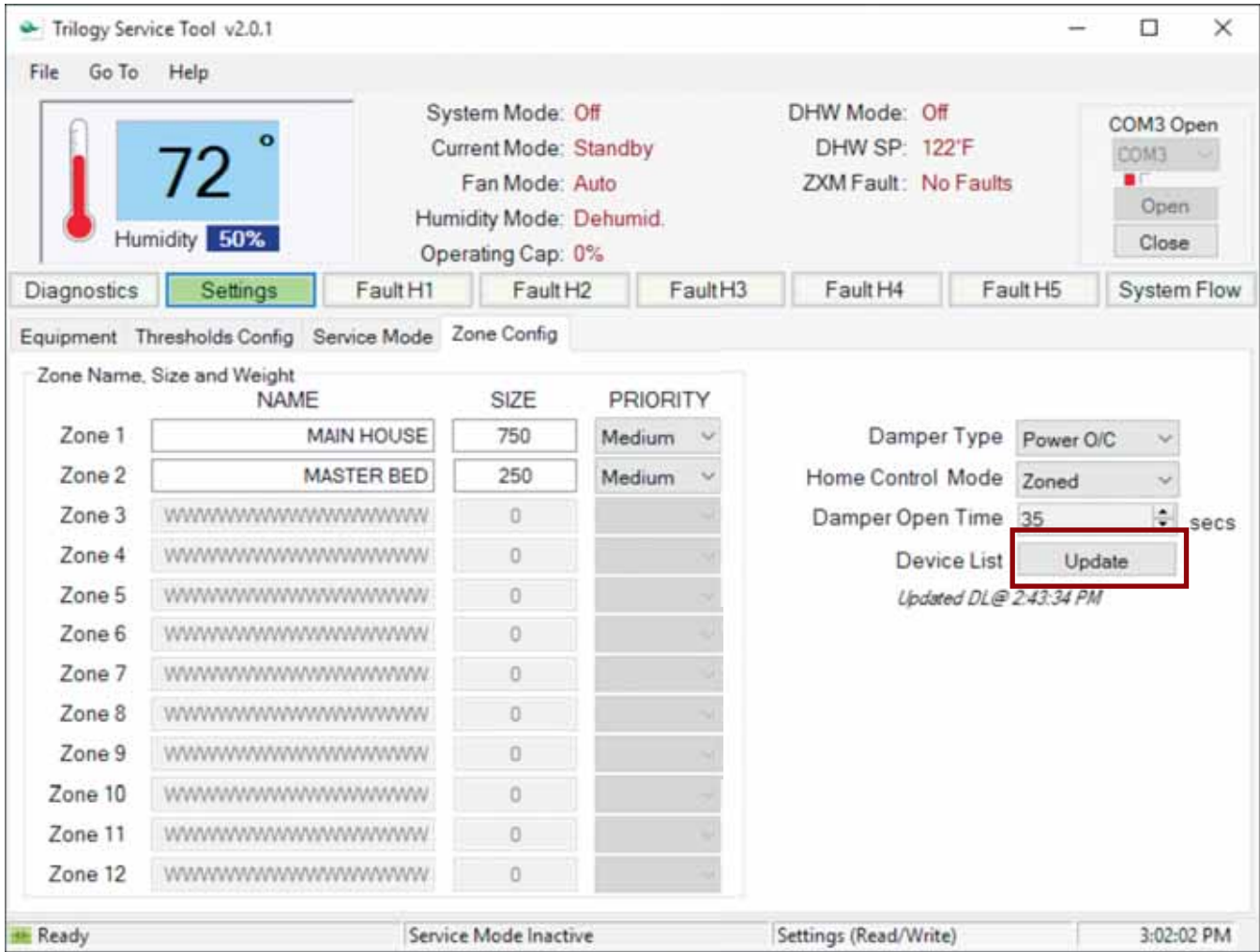


Set the Zone Size (CFM) determined for each zone per the manual J/D calculation

*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, effectively, 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.

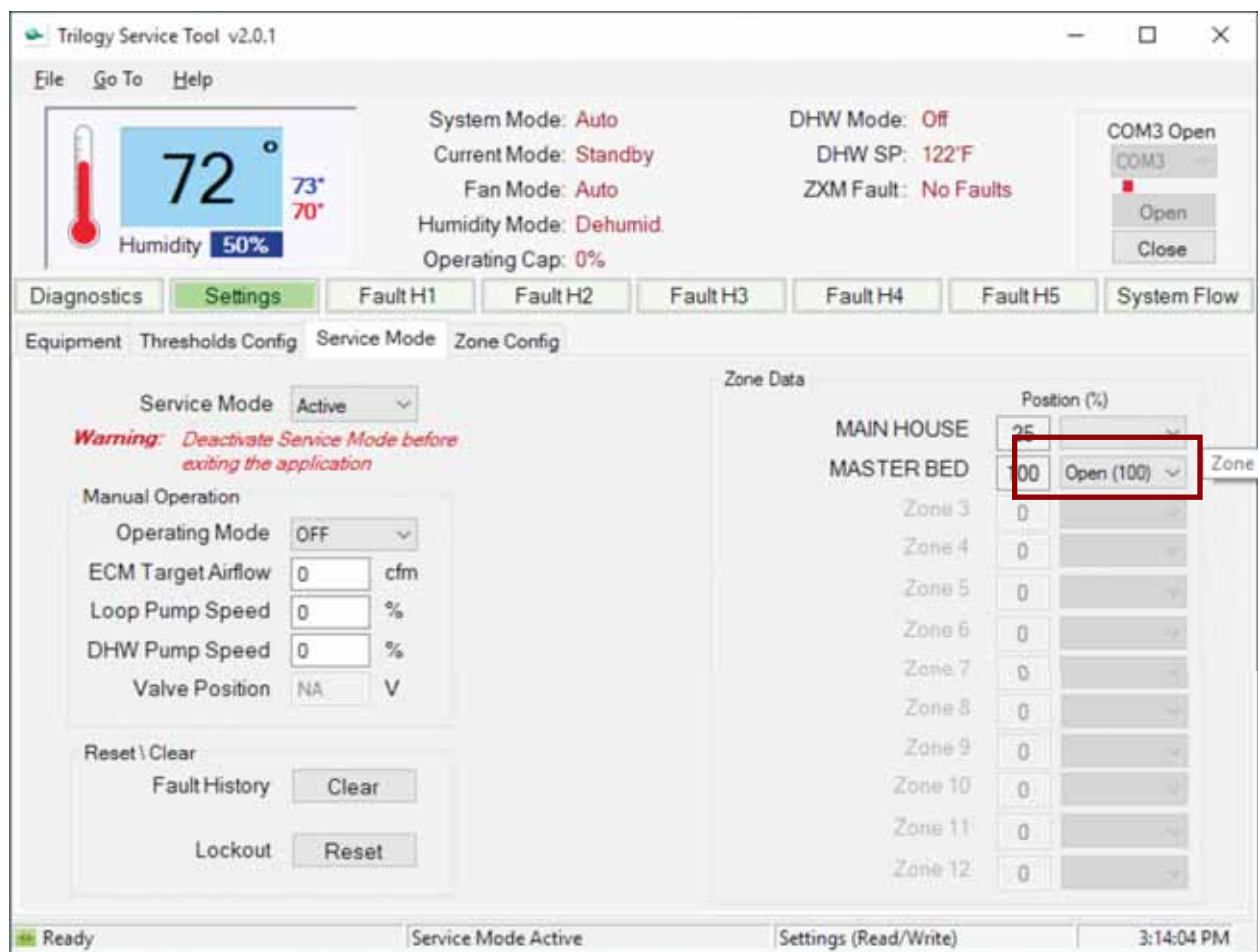


## Damper Timing

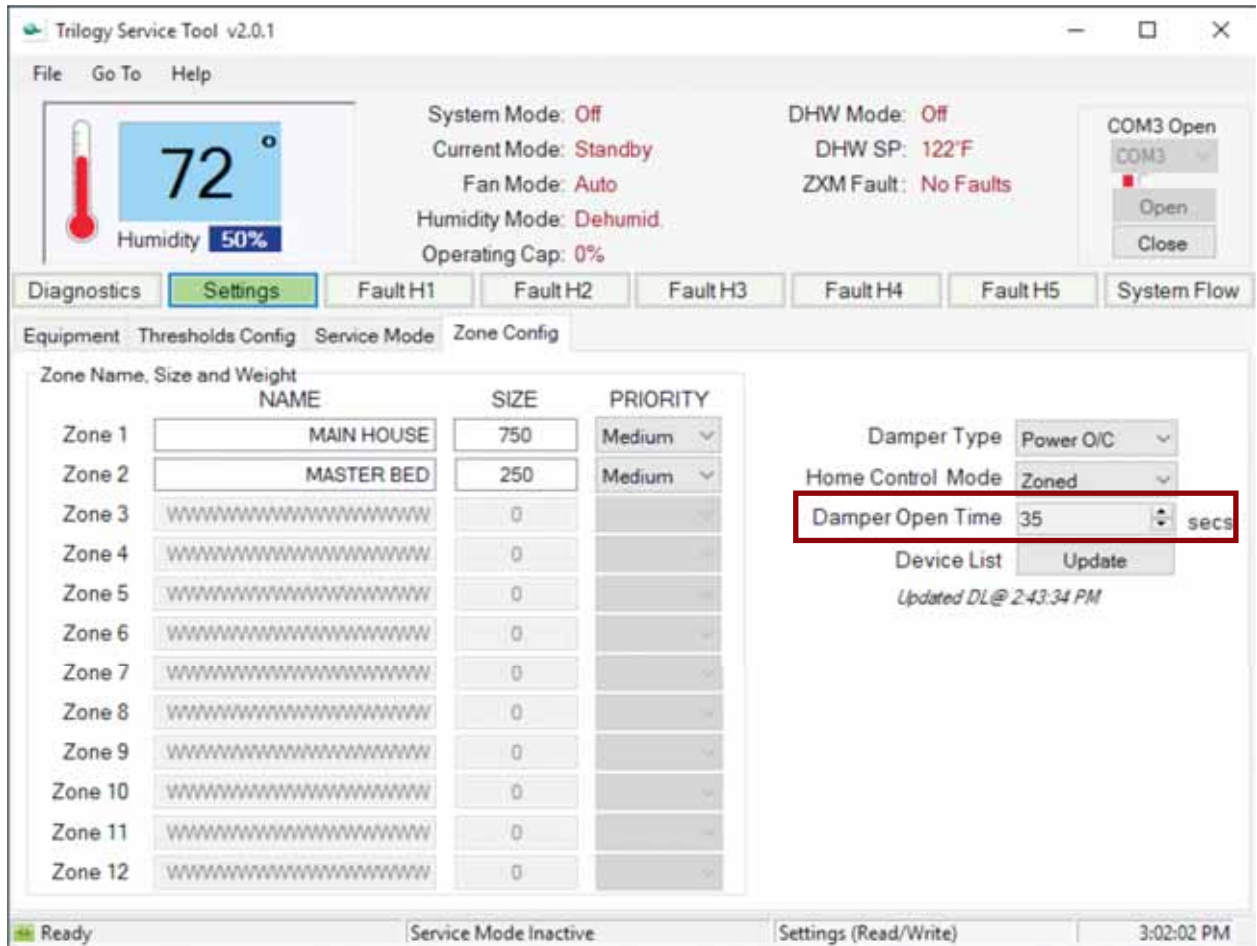
Damper timing must be set in order for the zone panel to properly open and close the dampers for each zone. To determine damper time activate **Service Mode** and open or close a damper, timing it with a stopwatch, to get the actual time it takes to fully actuate the damper.

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.



### Humidification Control

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

Trilogy Service Tool v2.0.1

File Go To Help

System Mode: **Auto**      DHW Mode: **Off**  
 Current Mode: **Standby**      DHW SP: **122°F**  
 Fan Mode: **Auto**      ZXM Fault: **No Faults**  
 Humidity Mode: **Dehumid.**  
 Operating Cap: **0%**

COM3 Open  
 COM3  
 Open

**72°** 73° 70°  
 Humidity **50%**

Diagnostics Settings Fault H1 Fault H2 Fault H3 Fault H4 Fault H5 System Flow

Main Component Details Miscellaneous Configuration Fault Zoning

Zoning Data									
	Pos (%)	Temp (°F)	Ht SP (F)	Cl SP (F)	RH (%)	RH SP(%)	Deh SP (%)	Mode	Fan Mode
MAIN HOUSE	25	69.1	68.0	81.0	24	40	45	Auto	Auto
MASTER BED	100	71.0	62.0	85.0	24	40	60	Auto	Auto
Zone 3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 12	NA	NA	NA	NA	NA	NA	NA	NA	NA

Ready      Service Mode Inactive      Diagnostics (Read only)      3:08:09 PM

## 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.**

Trilogi Service Tool v2.0.1

File Go To Help

System Mode: Auto  
 Current Mode: Standby  
 Fan Mode: Auto  
 Humidity Mode: Dehumid  
 Operating Cap: 0%

DHW Mode: Off  
 DHW SP: 122°F  
 ZXM Fault: No Faults

COM3 Open  
 COM3  
 Open  
 Close

**Diagnostics** Settings Fault H1 Fault H2 Fault H3 Fault H4 Fault H5 System Flow

Main Component Details Miscellaneous Configuration Fault **Zoning**

Zoning Data									
	Pos (%)	Temp (°F)	Ht SP (F)	Cl SP (F)	RH (%)	RH SP(%)	Deh SP (%)	Mode	Fan Mode
MAIN HOUSE	25	69.1	68.0	81.0	24	40	45	Auto	Auto
MASTER BED	100	71.0	62.0	85.0	24	40	60	Auto	Auto
Zone 3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 9	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zone 12	NA	NA	NA	NA	NA	NA	NA	NA	NA

Ready Service Mode Inactive Diagnostics (Read only) 3:08:09 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

#### Zone thermostats / Main COM LED Information-Amber

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

#### Fault LED Information-Red

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

#### 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

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

### ZXM Board Test Mode Fault Codes

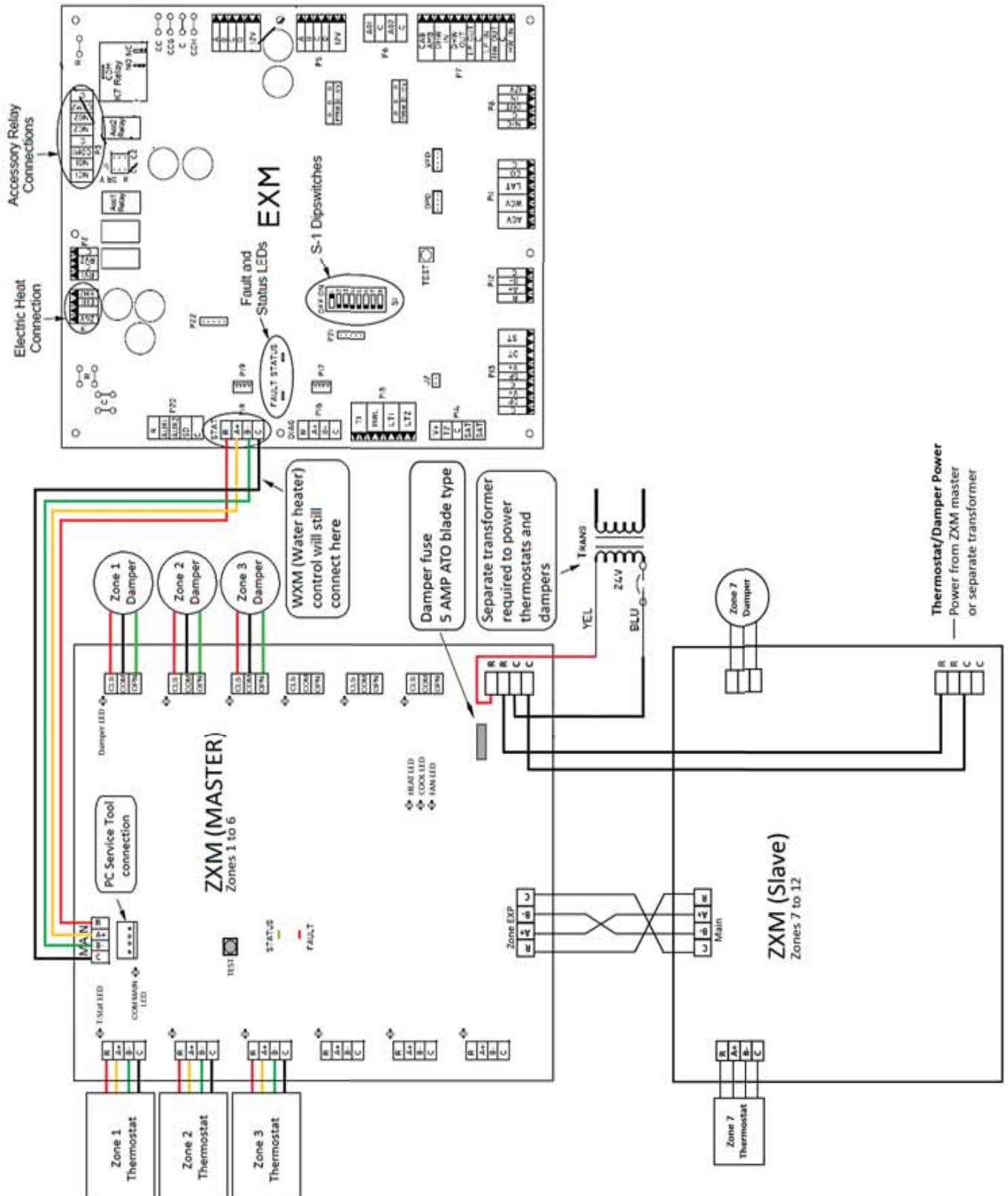
Enter and exit test mode by momentarily pushing the ZXM board test button. Push for more than 1/2 second and less than 5 seconds. In test mode the fault LED will fast flash the active fault. Fault code flashes have a duration of 0.3 seconds on, 0.3 seconds off with a 10 second pause between fault codes.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

## Troubleshooting

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

# Wiring Diagram

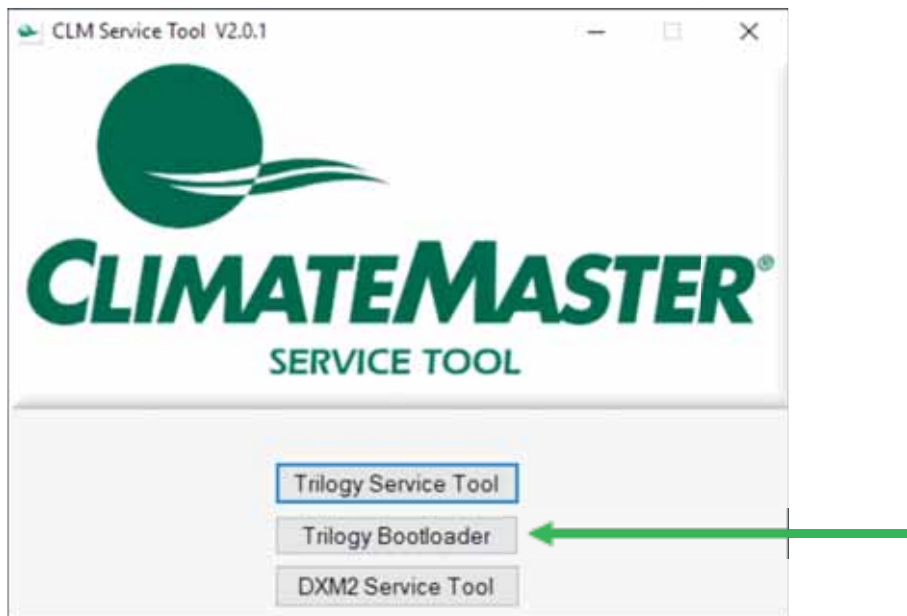


## Bootloader Instructions

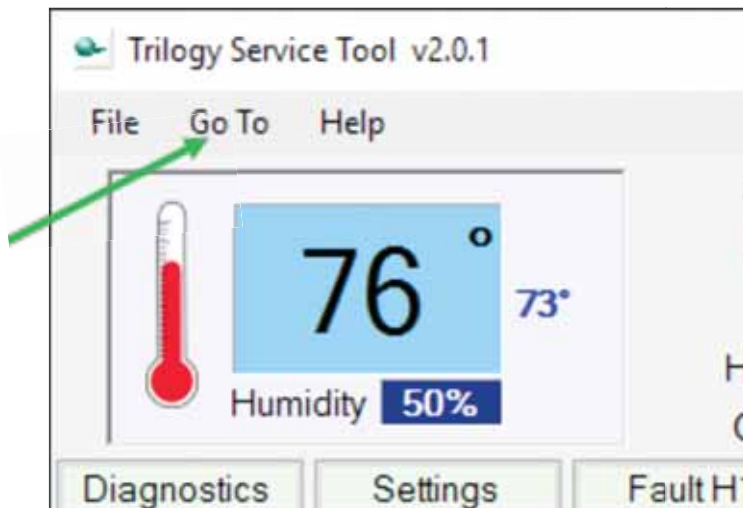
As alterations and/or enhancements to the EXM, ZXM and WXM functionality are made, there may be occasional updates to the firmware on the board. Bootloader allows a technician to update the board's firmware rather than replacing the board.

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".



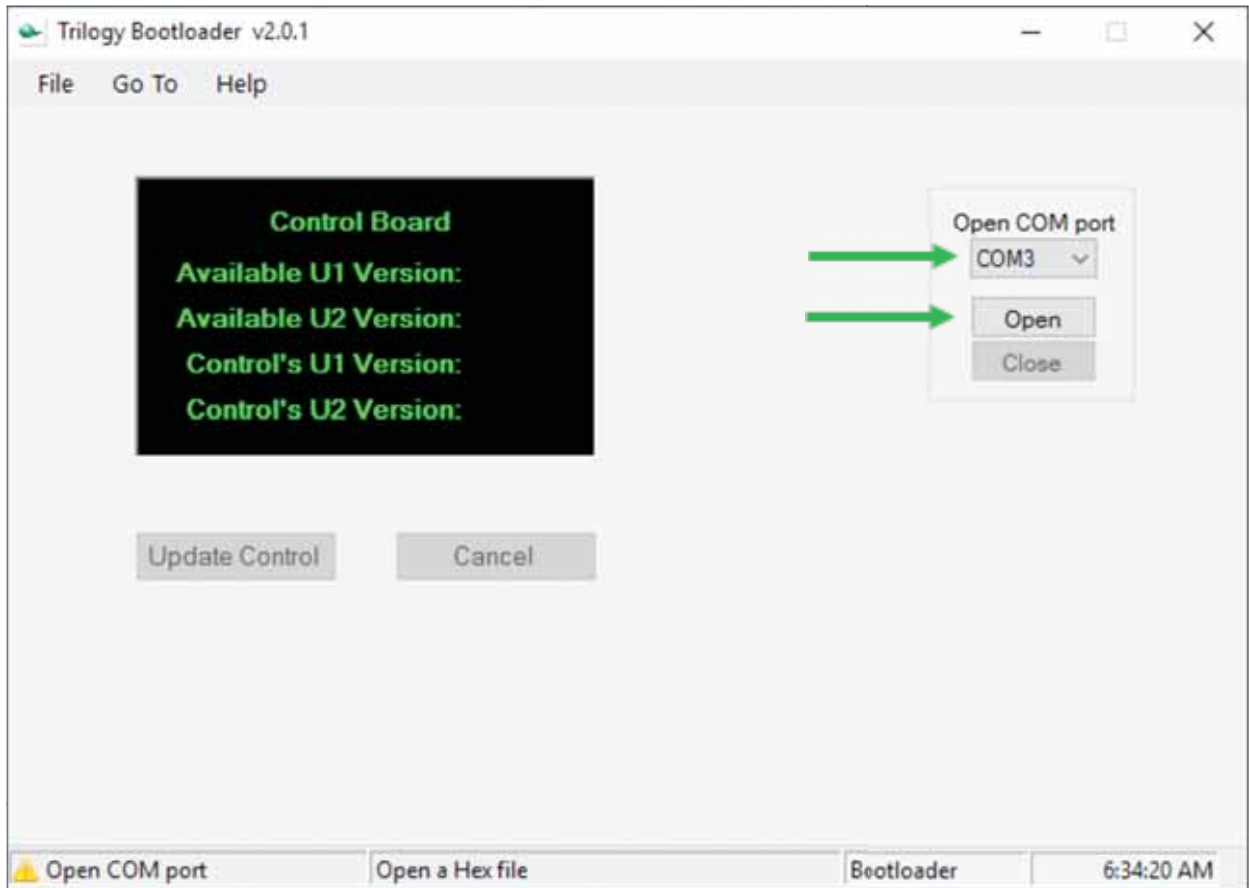
The Bootloader program requires the EXM to be placed into "Slave" mode before it will connect. You will need to flip DIP Switch 1 to the OFF position while using Bootloader;



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

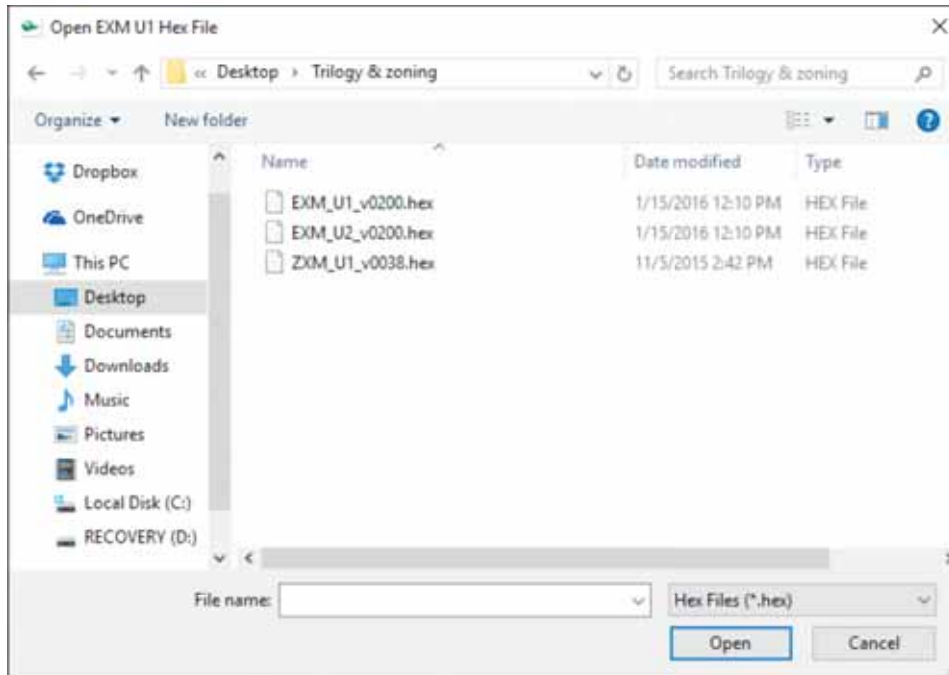
Connect the cable and dongle together and connect to the EXM STAT port and insert the dongle into the USB port.

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.



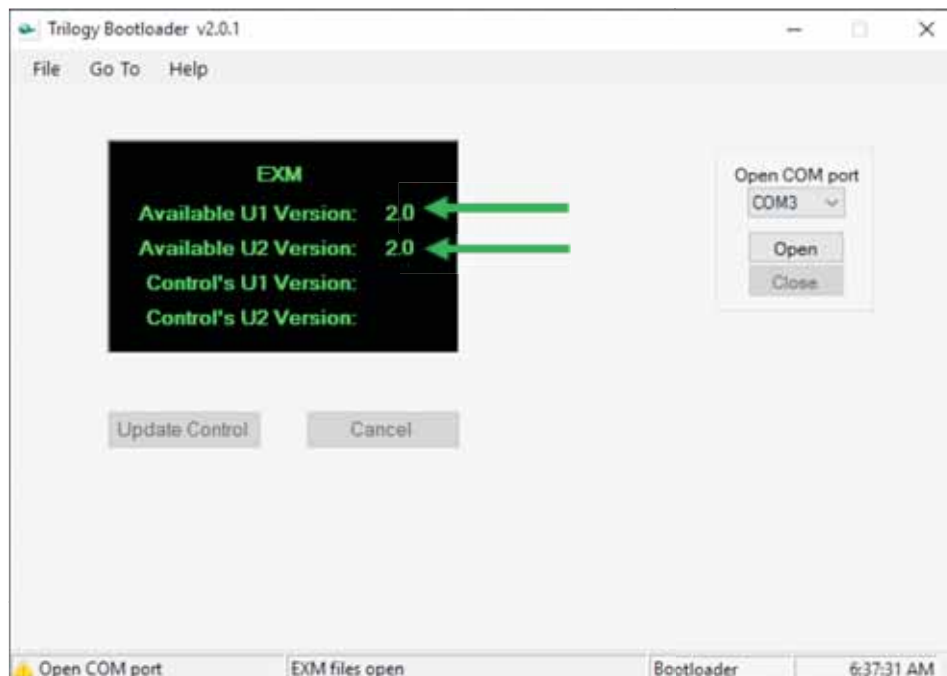
The Red and Green indicators will appear when communication is established (similar to the Service Tool).

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.

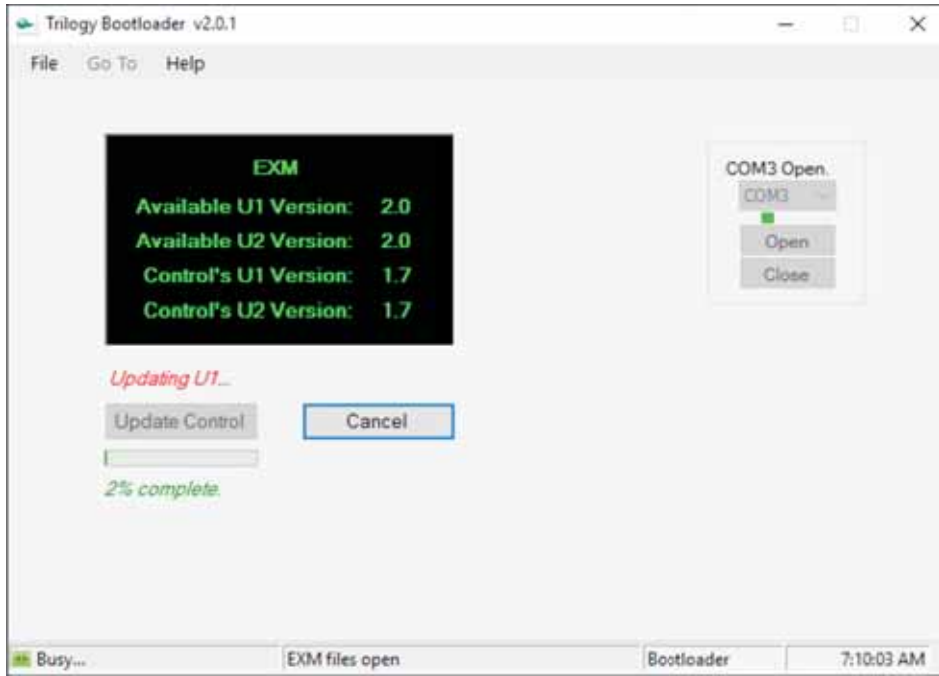


Go back to "File" then "Open EXM U2", choose the EXM\_U2\_vXXX and click Open.

Both versions should be displayed on the Bootloader screen.



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



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.



# Warranty



## CLIMATE MASTER, INC. LIMITED EXPRESS WARRANTY/LIMITATION OF REMEDIES AND LIABILITY FOR RESIDENTIAL CLASS PRODUCTS WITH LABOR ALLOWANCE

It is expressly understood that unless a statement is specifically identified as a warranty, statements made by Climate Master, Inc. a Delaware corporation, ("CM") or its representatives, relating to CM's products, whether oral, written or contained in any sales literature, catalog or agreement, are not express warranties and do not form a part of the basis of the bargain, but are merely CM's opinion or commendation of CM's products. **EXCEPT AS SPECIFICALLY SET FORTH HEREIN, THERE IS NO EXPRESS WARRANTY, AS TO ANY, OF CM'S PRODUCTS. CM MAKES NO WARRANTY AGAINST LATENT DEFECTS. CM MAKES NO WARRANTY OF MERCHANTABILITY OF THE GOODS OR OF THE FITNESS OF THE GOODS FOR ANY PARTICULAR PURPOSE.**

### GRANT OF LIMITED EXPRESS WARRANTY

CM warrants its Residential Class products, purchased and retained in the United States of America and Canada, to be free from defects in material and workmanship under normal use and maintenance as follows: (1) Air conditioning, heating and/or heat pump units built or sold by CM ("CM Units") for ten (10) years from the Warranty Inception Date (as defined below); (2) Thermostats, auxiliary electric heaters and geothermal pumping modules built or sold by CM, when installed with CM Units, for ten (10) years from the Warranty Inception Date (as defined below); and (3) Other accessories and parts built or sold by CM, when installed with CM Units, for one (1) year from the date of shipment from CM. The "Warranty Inception Date" shall be the date of original unit installation, or six (6) months from date of unit shipment from CM, whichever comes first.

To make a claim under this warranty, parts must be returned to CM in Oklahoma City, Oklahoma, freight prepaid, no later than ninety (90) days after the date of the failure of the part; if CM determines the part to be defective and within CM's Limited Express Warranty, CM shall, when such part has been either replaced or repaired, return such a to a factory recognized distributor, dealer or service organization, F.O.B. CM, Oklahoma City, Oklahoma, freight prepaid. The warranty on any part repaired or replaced under warranty expires at the end of the original warranty period.

This Limited Express Warranty shall cover the labor incurred by CM authorized service personnel in connection with the installation of a new or repaired warranty part that is covered by this Limited Express Warranty only to the extent specifically set forth in the then existing labor allowance schedule provided by CM's Warranty Department and only as follows: (1) CM Units for five (5) years from the Warranty Inception Date; (2) Thermostats, auxiliary electric heaters and geothermal pumping modules built or sold by CM, when installed with CM Units, for five (5) years from the Warranty Inception Date. Actual Labor costs are not covered by this Limited Express Warranty to the extent they exceed the amount allowed under said allowance schedule, they are not specifically provided for in said allowance schedule, they are not the result of work performed by CM authorized service personnel, they are incurred in connection with a part not covered by this Limited Express Warranty, or they are incurred more than the time periods set forth in this paragraph after the Warranty Inception Date.

This warranty does not cover and does not apply to: (1) Air filters, fuses, refrigerant, fluids, oil; (2) Products relocated after initial installation; (3) Any portion or component of any system that is not supplied by CM, regardless of the cause of the failure of such portion or component; (4) Products on which the unit identification tags or labels have been removed or defaced; (5) Products on which payment to CM, or to the owner's seller or installing contractor, is in default; (6) Products subjected to improper or inadequate installation, maintenance, repair, wiring or voltage conditions; (7) Products subjected to accident, misuse, negligence, abuse, fire, flood, lightning, unauthorized alteration, misapplication, contamination or corrosive air or liquid supply, operation at abnormal air or liquid temperatures or flow rates, or opening of the refrigerant circuit by unqualified personnel; (8) Mold, fungus or bacteria damages; (9) Corrosion or abrasion of the product; (10) Products supplied by others; (11) Products which have been operated in a manner contrary to CM's printed instructions; (12) Products which have insufficient performance as a result of improper system design or improper application, installation, or use of CM's products; or (13) Electricity or fuel costs, or any increases or unrealized savings in same, for any reason whatsoever.

This Limited Express Warranty provides the limited labor allowance coverage as set forth above. Otherwise, CM is not responsible for: (1) The costs of any fluids, refrigerant or system components supplied by others, or associated labor to repair or replace the same, which is incurred as a result of a defective part covered by CM's Limited Express Warranty; (2) The costs of labor, refrigerant, materials or service incurred in diagnosis and removal of the defective part, or in obtaining and replacing the new or repaired part; (3) Transportation costs of the defective part from the installation site to CM, or of the return of that part if not covered by CM's Limited Express Warranty; or (4) The costs of normal maintenance.

This Limited Express Warranty applies to CM Residential Class products ordered from CM on or after May 1, 2010 (this would generally include CM Units with serial numbers beginning with "N118" and higher), and is not retroactive to any products ordered from CM prior to May 1, 2010 (this would generally include CM Units with serial numbers beginning with "N117" and lower). If you are unsure if this Limited Express Warranty applies to the product you have purchased, contact CM at the phone number or address reflected below.

**Limitation:** This Limited Express Warranty is given in lieu of all other warranties. If, notwithstanding the disclaimers contained herein, it is determined that other warranties exist, any such express warranty, including without limitation any express warranties or any implied warranties of fitness for particular purpose and merchantability, shall be limited to the duration of the Limited Express Warranty.

### LIMITATION OF REMEDIES

In the event of a breach of the Limited Express Warranty, CM will only be obligated at CM's option to repair the failed part or unit, or to furnish a new or rebuilt part or unit in exchange for the part or unit which has failed. If after written notice to CM's factory in Oklahoma City, Oklahoma of each defect, malfunction or other failure, and a reasonable number of attempts by CM to correct the defect, malfunction or other failure, and the remedy fails or the essential purpose, CM shall refund the purchase price paid to CM in exchange for the return of the sold goods(s). Said refund shall be the maximum liability of CM. **THIS REMEDY IS THE SOLE AND EXCLUSIVE REMEDY OF THE BUYER OR PURCHASER AGAINST CM FOR BREACH OF CONTRACT, FOR THE BREACH OF ANY WARRANTY OR FOR CM'S NEGLIGENCE OR IN STRICT LIABILITY.**

### LIMITATION OF LIABILITY

CM shall have no liability for any damages if CM's performance is delayed for any reason or is prevented to any extent by any event such as, but not limited to: any war, civil unrest, government restrictions or restraints, strikes, or work stoppages, fire, flood, accident, shortages of transportation, fuel, material, or labor, acts of God or any other reason beyond the sole control of CM. **CM EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE IN CONTRACT, FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY, OR IN TORT, WHETHER FOR CM'S NEGLIGENCE OR AS STRICT LIABILITY.**

### OBTAINING WARRANTY PERFORMANCE

Normally, the dealer or service organization who installed the products will provide warranty performance for the owner. Should the installer be unavailable, contact any CM recognized distributor, dealer or service organization. If assistance is required in obtaining warranty performance, write or call:

Climate Master, Inc. • Customer Service • 7300 SW 44th Street • Oklahoma City, Oklahoma 73179 • (405) 745-6000 • e-service@climatemaster.com

NOTE: Some states or Canadian provinces do not allow limitations on how long an implied warranty lasts, or the limitation or exclusions of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state and from Canadian province to Canadian province.

Please refer to the CM Installation, Operation and Maintenance Manual for operating and maintenance instructions.

Rev.: 4/10  
Part No.: RFR51

## Notes

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**Notes**

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## Revision History

Date	Page #	Description
Sept. 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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