

# Dickson WiZARD2.4 Wireless System

You have just purchased a precision data Logger system.  
To ensure proper installation of the WiZARD2.4 Wireless System, please  
read this manual in its entirety and closely follow setup instructions.

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## **IMPORTANT STARTUP NOTES - PLEASE READ:**

1. The WiZARD2.4 system will not work with other Dickson loggers. Only WiZARD2.4 loggers will communicate.
2. Full administrative rights are required on the host PC in order to install and setup the WiZARD2.4 system. We recommend against using this system on a PC with more than one user login.
3. We strongly recommend that the PC hosting the WiZARD2.4 software and Receiver be a dedicated PC with at least 1GB RAM, that is not used for other wireless or SQLite applications including DicksonWare & DicksonWare SECURE (wireless devices such as a mouse and keyboard will not interfere with the WiZARD2.4). Firefox, Internet Explorer, Access and other software applications that use SQLite have been found to compete for resources and can lock up the PC.
4. The host PC screen saver should be disabled and power options should be set to NEVER for “Turn Off Hard Disk”, “System Standby” and “Enable Hibernation”. Also, turn off Automatic Update Installation. (See Trouble Shooting for help with checking system settings.)
5. This system has been tested on and approved for Windows XP w/service pack 3, Vista and Windows 7 PC's
6. Before you begin installation, have the Receiver, Logger(s) and any Repeater(s) at the base computer where you plan to install the WiZARD2.4 Software and Receiver.
7. Logger/Receiver/Repeater signal strength performs best when mounted high up on a wall or on the ceiling.
8. It is recommended that the USB cables and AC adapters be supplied by Dickson. If a USB cable or AC adapter needs replacement, contact Dickson Customer Service.
9. Do not use a USB cable longer than 6'.

## System Upgrade

**Follow these instructions if you are upgrading from the previous version of WiZARD to the WiZARD2.4 system.**

1. A full un-installation of the existing WiZARD system is necessary. If you do not want to loose data stored in your current WiZARD database, please follow the steps below (if saving old data is not necessary, skip to step 2):
  - a. Locate a second PC. This PC will store the existing database for future reference. Install your current version of WiZARD software on this PC. (You will not set up any hardware on this PC)
  - b. On the Host PC go to C:\Program Files\Dickson\Dickson Wizard\db. Copy the Dickson.db3 database to the exact same location on the second PC. Open WiZARD on this PC and view archived logged data to ensure proper setup.
2. Uninstall the Wizard software on the Host PC. Go to control panel and selecting “add or remove programs”.
3. Remove the database and Receiver ID files. Go to C:\Program Files\Dickson. Delete the “DicksonWizard” folder and all contents.
4. **Unplug and turn off** the Receiver and all Loggers and Repeaters.
5. Using the Quick Start Guide, install the WiZARD2.4 System

## System Component Overview:

### Host PC:

- PC where the WiZARD2.4 Software and Receiver are installed and Loggers and Repeaters are setup.
- Only one WiZARD2.4 System can operate on one PC at any time.
- To view logged data from more than one PC, the host PC and non host PCs must be connected to the same network and the non host PCs must have WiZARD2.4 Network Software installed. See section 11 below for more information.
- This PC must have at least 1GB RAM and be on 24/7 in order for the WiZARD2.4 system to operate properly.
- It is recommended that the host PC be rebooted occasionally to keep things running smoothly. There will not be any lost data while rebooting
- Individuals installing and setting up the WiZARD2.4 system must have full administrative rights on the host PC.
- USB Connection: Best when connected to primary USB. Will not operate on an unpowered USB hub.

### WiZARD2.4 Software:

- Software is included with the Receiver and is required to setup, manage and view all Loggers, Repeaters and saved logged data.
- Stores all logged data points for viewing via graphs and tables in an encrypted database.
- Must run 24/7 on host PC in order for WiZARD2.4 system to operate properly.

**Receiver (WR420/425):**

- WR420 features a WR400 Receiver and WiZARD2.4 Software. WR425 features a WR400 Receiver and WiZARD2.4 SECURE 21CFR11 Compliant Software.
- The Receiver forwards data packets from the Loggers to the WiZARD2.4 database.
- Must always be on and connected to the PC via a USB cable. It should be powered via the AC adapter and have Backup Batteries installed.
- Receivers do not require calibration.

**Logger (WT400/420/440/WH420/425/445):**

- Take readings at regular intervals and send those readings to the Receiver at regular transmission intervals.
- Loggers are setup via USB at the host PC.
- Have a practical unobstructed operating range of up to 300 ft (150 ft. standard) from Receiver. Any metal infrastructure or other wireless devices will significantly reduce operating range.
- Will save logged data when communications with the Receiver have been interrupted. Once communications are restored, saved logged data will be sent.
- Loggers should be calibrated every 6 to 12 months.

**Repeater (WA400):**

- Extends the distance of a Logger from the Receiver by forwarding the data packet from the Logger to the Receiver.
- Must be setup in the WiZARD2.4 Software in order to operate.
- Logger(s) must be told to send data packet to the Repeater not the Receiver.
- Repeater can forward data packets for multiple Loggers.
- Repeaters can forward data packets to another Repeater.
- Repeaters do not require calibration.

**Signal Sensor (WS400):**

- Allows the user to determine the signal strength of the Receiver, and any setup Repeaters, at a current or potential Logger or Repeater location.
- Does not look for Loggers only Repeaters and Receivers



## 1) Software Installation

### Before Software Installation:

1. The host PC screen saver should be disabled and power options should be set to NEVER for “Turn Off Hard Disk”, “System Standby” and “Enable Hibernation”. Turn off Automatic Update Installation. See Trouble Shooting for help with checking PC settings.
2. PC login at time of setup must have full administrative rights.
3. If using Microsoft Vista, UAC (User Account Controls) should be disabled. From the Control Panel go to User Accounts, User Accounts, Turn User Account Control On or Off. Uncheck the box next to “User User Account Control (UAC) to help protect your computer. Click on OK. The PC will restart.
4. If using Microsoft 7, you will need to unhide all files in order to see the audit trail text files. From the Control Panel go to Folder Options, View and select “Show Hidden Files, Folders and Drives”. Click on OK.

- a) Insert CD - installation file opens (Depending on your version of Windows, the CD AutoPlay window may open. Click on Run Setup.exe to start.)
- b) “Welcome” window opens. Click on NEXT
- c) “Choose Destination Location” window opens. Accept Defaults. Click NEXT
- d) “Select Program Manager Group” window opens click “Next”
- e) “Start Installation” window opens click “Next”
- f) Program begins installation – View progress bar.
- g) Installation complete. Click FINISH.
- h) Software is now installed and the Dickson Wireless shortcut is on your desktop.
- i) Do not open WiZARD2.4 Software until instructed.

NOTE: If while installing the WiZARD2.4 Software, a Dot Net Framework error message pops up. You will need to update to Dot Net Framework 2.0. Included on the WiZARD2.4 Software CD is a folder called Dot Net Fix. Open this folder and run the file dotnetfix.exe.

## 2) RECEIVER: Installing the Receiver (WR420/425)

**IMPORTANT:** When adding USB devices many PC's will prompt you to reboot the PC once the device is added. Respond NO to this message. **Do not reboot the PC unless WiZARD2.4 Software has been closed first.**

- a) Slide toggle switch to the ON position (this will allow Receiver to use battery backup power if AC power is lost)
- b) LED will flash blue/red/green for 2 seconds
- c) Plug in AC adapter to Receiver and a local outlet.
- d) Connect USB cable to available USB port on PC and to Receiver
- e) Open WiZARD2.4 software via desktop shortcut
- f) Enter Login ID: **admin** (WiZARD2.4 SECURE only)
- g) Enter Password: **Dickson** (WiZARD2.4 SECURE only)
- h) Click OK (WiZARD2.4 SECURE only)
- i) Status Screen will open.
- j) Lower left corner in WiZARD2.4 software will read "Receiver Update Mode"
- k) "Receiver ID Entry" window will pop up.
- l) Enter any ID you wish (**4 digits only (0-9 and A-F)**
  - i) "0000" and "FFFF" are not valid ID's
  - ii) **NOTE:** Each device (Logger/Repeater/Receiver) must have a unique ID
- m) Click OK
- n) Lower left corner of window will read "re-starting", then "connected", followed by "retrying polling command", then "connected" again. This may take a couple minutes depending on the PC.
- o) The Receiver is now connected.
- p) If a polling failure command appears, check to make sure you are using XP with Service Pack 3. Older XP versions can cause the USB to fail.
- q) **NOTES:**
  - i) The Receiver will always require power directly from the AC adapter.
  - ii) Batteries for backup are recommended to prevent the system from locking up if there is a sudden loss of power or brownout.

If you purchased a Signal Sensor WS400, follow the steps below if not skip this section.

## 3) SIGNAL SENSOR (WS400):

- a) Once the Receiver has been installed, go to each designated Logger and Repeater location, with the Signal Sensor, to determine if the Receiver signal strength will be strong enough to reach that location. (See Signal Sensor Operating Instructions below.)
- b) The display will indicate if the Receiver can be found and how strong the signal is.

- c) If the signal sensor stabilizes at 2 or more bars, for a target Logger after 5 minutes in that location, then the location is good. If the signal strength repeatedly drops below 2 bars, or the Receiver does not display, a Repeater will be required to ensure consistent communication of the Logger to the Receiver.
- d) Repeat for all Logger placement locations.
- e) If it has been determined that a Repeater(s) is required, install the Repeater(s) first, then link each Logger to its designated Repeater when installing.
- f) **Signal Sensor Operation:**
  - i) Move to the location where you wish to place a Logger or Repeater.
  - ii) Press the On/Off button once on your signal sensor to turn on.
  - iii) Stand at the target Logger/Repeater location for a minimum of 5 minutes. The Signal Sensor will indicate if it can see the Receiver or other Repeaters and display signal strength. (The signal sensor does not look for Loggers.)
  - iv) If a Repeater or Receiver is found and the signal strength for the target device stabilizes at 2 bars or more, the target location is good.
  - v) If a Repeater or Receiver can not be located or frequently drops below 2 bars, move closer to known Repeater or Receiver locations until a stronger signal is found.

Notes:

1. Do not place the Signal Sensor within 10 feet of any actively running Receiver or Repeater. The close proximity will cause the Signal Sensor to display false 1 or 2 bar readings for that device.
2. Occasionally a Repeater or Receiver will display twice. Simply press the page up or down button to clear the duplicate reading.
3. Signal Strength can also be determined by using the logger Push to Start button. Go to section 6 "Placing Loggers and Repeaters" for instructions.

#### Did you purchase a Repeater(s)?

**Yes:** See Repeater Installation below

**No:** Skip to the Installing Loggers section

#### 4) Repeater Installation (WA400)

If a Logger is found to be out of range by the Signal Sensor, or if there are several signal obstacles between the Receiver and Logger, a Repeater can be installed between the Receiver and Logger.

NOTE: When adding USB devices many PC's will prompt you to reboot the PC once the device is added. Respond NO to this message. Do not reboot the PC unless WiZARD2.4 Software has been closed first.

- a) Slide toggle switch to the ON position (this will allow Repeater to use battery backup power if AC power is lost)
- b) LED will flash red/blue/green 2 seconds.
- c) Plug in AC adapter

- d) Connect USB cable to available USB port on PC and to Repeater
- e) Lower left corner of WiZARD2.4 software will read “USB Device Attached” followed by “Logger Update Mode”
 

**Note: If you get a “USB Device Not Recognized” pop up. Go to USB Device Not Recognized in the Troubleshooting section of this manual.**
- f) The Add Logger/Repeater window will open
- g) The Repeater installation screen is the same as the Logger installation screen but only requires the following information:
- h) **Connect Via:** Tells the Repeater where to forward data. Select Receiver or any installed Repeater.
- i) **Name:** Any name you wish to give the Repeater: Alpha/numeric field 15 characters.
- j) **Unit ID:** Enter any unique ID you wish (4 digits only (0-9 and A-F)
  - i) **Note:** “0000” and “FFFF” are not valid ID’s
  - ii) Each Repeater/Logger must have a unique ID
- k) **Location:** Description of where Repeater is to be placed: Alpha/numeric field 20 characters.
- l) **Status:** Active
- m) Once screen is complete click on SAVE CHANGES AND START button.
- n) A window will pop up “Adding Repeater”.
- o) DO NOT disconnect Repeater until the Info window opens indicating that the Repeater was installed successfully. This may take up to a minute depending on the PC.
- p) Once installed the Receiver will begin an Update routine for the Repeater. Do not plug in another Repeater/Logger till the update is complete.
- q) Keep the Repeater at the desk until all Loggers and Repeaters that will be connected to it have been added.
- r) **NOTES:**
  - i) **When moving the Repeater to its target location do not turn it off.**  
Allow the Receiver to run on battery power while in transition.
  - ii) Once in the target location the Repeater will always require power directly from the AC adapter. Batteries are recommended for backup.
  - iii) Repeaters can be setup in a “chain” to extend Logger distance from the Receiver.

## 5) Logger Installation (WT400/420/440/WH420/425/445)

**NOTE:** When adding USB devices many PC’s will prompt you to reboot the PC once the device is added. Respond NO to this message. Do not reboot the PC unless WiZARD2.4 Software has been closed first.

- a) Slide toggle switch to the ON position.
- b) LED will flash red/blue/green for 2 seconds.
- c) Connect USB cable to available USB port on PC and to Logger
- d) Lower left corner will read “USB Device Attached” followed by “Logger Update Mode”

**Note: If you get a “USB Device Not Recognized” pop up. Go to USB Device Not Recognized in the Troubleshooting section of this manual.**

- e) The Add Logger/Repeater window will open. Populate the following fields:
  - i) **Connect Via:** Tells the Logger where to send its signal. Select Receiver or an installed Repeater
  - ii) **Unit type:** Logger
  - iii) **Unit ID:** Enter any ID you wish (4 digits only (0-9 and A-F)
    - (1) **Note:** “0000” and “FFFF” are not valid ID’s
    - (2) Each Repeater/Logger must have a unique ID
  - iv) **Name:** Any name you wish to give a Logger: Alpha/numeric field 15 characters.
  - v) **Location:** Location description of where Logger is to be placed: Alpha/numeric field 20 characters.
  - vi) **Status:** Active
  - vii) **Push to Start:**
    - (1) **No:** Logger will automatically start logging once Logger is setup.
    - (2) **Yes:** Will delay logging till push to start button on Logger is pressed. Logger Status Screen will display “no data” until Push-to-Start button is pressed and the Logger has collected enough data to send logged data to the Receiver. **Push to start button should be held down for 2 seconds to activate.**
  - viii) **Sample Rate:** User selectable up to 1 hour starting at 10 seconds in 10 second intervals
  - ix) **User Calibration Interval:** Defaults to 6 months. Can be set from 1 month to 24 months in 1 month increments.
  - x) **Audible Alarm On/Off:** Applies to models WT440 and WH445 only. To reset the audible alarm, hold down the Push-to-Start button for 2 seconds. The alarm reset time depends on the Alarm Delay setting. If the Alarm Delay is set for 5 minutes, the logger will reset the alarm for 5 minutes, if after 5 minutes the alarm still exists, the logger alarm will sound.
  - xi) **Channel Name 1:** 25 character name (not required)
  - xii) **Channel Name 2:** 25 character name for WH models only (not required)
  - xiii) **Set Email/Text Alert:** Active for 21CFR11 Compliant Secure WiZARD2.4 Software only – WR425. Allows up to 6 text/email messages to issue when alarm condition is met.
    - (1) **NOTE: Email/Text addresses must first be setup in TOOLS / EMAIL TEXT ADMIN in order to show in dropdown box.** May be added to Logger after Logger has been setup. Go to Text/Email Setup section in this manual for instructions.
  - xiv) **Alarm Temp/Humidity:** Set min and max alarm conditions for Logger if desired.
  - xv) **Alarm Delay:** If desired an alarm delay of up to 999 minutes can be set.

- (1) Alarm Delay is the amount of time the software will wait before issuing an alarm. If the alarm condition clears before the Alarm Delay period has passed, then no alarm will be issued.
- (2) Logger Models WT440 and WH445 use the alarm delay period when sounding the audible alarm.
- f) Once screen is complete click on SAVE CHANGES AND START button. A window will pop up “Adding Logger”.
- g) DO NOT disconnect Logger until the Info window opens indicating that the Logger was installed successfully. This may take up to a minute depending on the PC.
- h) Once installed the Receiver will begin an Update routine for the Logger. Do not plug in another Repeater/Logger till the update is complete.
- i) The Logger now shows up in the WiZARD2.4 Logger table and can be placed at the desired logging location. A Signal Sensor is recommended for proper location of Loggers and Repeaters. See Signal Sensor.
- j) **NOTES:**
  - i) Keep the Logger at the desk until all Loggers and Repeaters have been added. Plug in AC adapter to Logger (Models WT440 & WH445 only)
  - ii) **DO NOT turn off the Logger when moving it to the target location.** If using a WT440 or WH445, allow the Logger to run on battery power while moving. Turning off the Logger can cause it to lose time. If the Logger was turned off for any reason – including changing batteries, clear the Logger via USB or Wirelessly to reset time. See section 7.
  - iii) The Push-to-Start button can be used to force a transmission if confirmation of logger connection is necessary. Hold down the button for 3 seconds to send a transmission.

## 6) Placing Loggers and Repeaters

- a) Now that the Loggers and Repeaters are setup, let them run at the PC for a while before moving them. Make sure that all of the loggers are communicating.
- b) If you setup more than 10 Loggers and or Repeaters, the first Loggers installed may show a large time gap between the Time of Last Transmission and Time of Last Reading. The Receiver can not accept data when adding new Loggers and Repeaters, so the units need to catch up. Give them time to do so.
- c) Comparing the Time of Last Transmission and Time of Last Reading:
  - i) If the Sample rate is 2.5 minutes or less, the gap between the Transmission time and Reading time should not be greater than 5 minutes.
  - ii) For sample rates greater than 2.5 minutes, take 2 x sample rate to determine the possible time gap between the Transmission and Reading times. If the time gap is larger, there are missed transmissions.

- iii) Remember: The loggers save every data point up to 32,000 samples so even if there are missed transmissions, the data will eventually be sent.
- d) Now that you are ready to move the Loggers and Repeaters to their locations, there is a **quick easy way to test the signal strength** without using the Signal Sensor:
  - i) Pressing down on the Push to Start button will force the logger to transmit. If the logger is getting through to the Receiver the LED will blink BLUE. If the logger can not reach the Receiver the LED will blink BLUE & RED
  - ii) If the Logger connects via the Receiver, simply walk the logger to its target location and press and hold the Push to Start button and watch the LED. If there are several BLUE/RED flashes, the location is bad and the signal can not get through. Try moving the logger around while holding down the Push to Start button looking for a BLUE flash.
  - iii) If the Logger connects via a Repeater, take the Repeater and Logger to the Repeater location and press and hold the Push to Start button. A BLUE flash indicates that the Repeater location is good. Move the logger to its location and repeat the test.
  - iv) If the Logger connects via a Repeater connected to a Repeater etc. Take the Logger and all Repeaters in the chain to the first Repeater location and press the Push to Start button while watching the LED blink. Repeat this for each Repeater using the logger LED to verify placement.
- e) **Placement Tips:**
  - i) When placing the W2 devices note that the antenna signal radiates from the front and back of each device.
    - (1) If a Logger or Repeater is mounted on an I-Beam or other heavy metal object the signal will not go through. The metal will affectively ground the signal.
    - (2) Try to place the Loggers, Repeaters and Receiver facing toward each other to maximize signal distance.

## 7) Active/InActive/Loggers/Repeaters

- a) **Making a Logger/Repeater Inactive:**
  - i) If a Logger is returned for calibration or a Logger or Repeater is taken out of service, Edit the affected unit and change Logger Status to **InActive** and remove power from the Logger/Repeater.
  - ii) A Repeater can not be made inactive if an active device is attached to it. Use the Structure Screen to see if any devices are attached.
- b) **Hiding Inactive Loggers:**
  - i) To hide InActive Loggers from the Equipment Status Screen, go to Tools, System Settings and check the box next to hide under Inactive Loggers.
  - ii) Logged data will still remain in the database but the Loggers will not show up in tables/graph selection and status screens.

c) **Returning a Logger to Active Status:**

- i) To return a Logger to active status, connect the Logger to the PC via the USB cable. The Edit Logger window will open. Change Status to Active (other settings can also be changed at this time) and click on Save Changes and Start.
- ii) The Logger will be cleared and updated.

8) **Editing Logger/Repeater Settings**

- a) Once the system has been setup existing Loggers & Repeaters can be modified. All fields can be modified except for Unit ID. There are two options for changing Logger/Repeater setup:
- i) **Wireless Change:** Allows changes to all fields **except for Unit ID, Push to Start and Changing Status from InActive to Acitive.**
  - (1) **Logger must be actively communicating – no lost communication errors and time of last transmission should have been updated within the past 7 minutes. If the logger is not communicating change via USB connection.**
  - (2) From the Equipment Status Screen right click on the Logger and select edit to open Edit Logger window.
  - (3) Modify field. More than one field can be changed at a time.
  - (4) Click on SAVE CHANGES AND START. A window will pop up indicating that the change has been sent via Wireless mode. Leave the Logger in its current location until the wireless change is complete.
  - (5) The unit can not be edited and the Edit option will remain grayed out until the changes have been completed. If after 20 minutes the Edit option is still grey you should receive an alarm indicating that the wireless change was unsuccessful. Bring the unit to the PC and edit the unit via USB.
- (6) **NOTE:**
  - (a) When changing a Logger/Repeater wirelessly, the change can not be sent until the Logger wakes up to send data and may require more than 1 attempt to send all changes. Depending on the sample rate, this might take up to 20 minutes. Pressing the logger Push to Start button will force a transmission and speed up the wireless change.
  - (b) If the change needs to take place immediately use the USB to modify setup.
- ii) **USB Change: Use this option for faster changes and in the event that the Logger has lost communications**
  - (1) Connect the Logger to the PC via the USB cable.
  - (2) The Edit Logger window will open.
  - (3) Modify field(s). More than one field can be changed at a time.
  - (4) Click on SAVE CHANGES AND START. The Updating Logger window will open.
  - (5) Once the update is complete, unplug the USB and place the Logger/Repeater in the desired logging location.

**NOTE: If the Sample Rate, Connect Via or Status fields were not changed, clear the logger either via USB or wirelessly to reset logger time.**

9) **21CFR11 WiZARD2.4 Secure Features (WR425 only)**

a) **Setting Up Email/Text Alerts**

- i) This feature will generate email/text alerts for a given Logger when any one of the selected alarm conditions is met: Max Alarm, Min Alarm, Lost Communication, Low Battery, and Calibration Due.

ii) **Step 1: Unblocking Port 25 (Not Required for Windows 7)**

Text/Email messaging requires that Port 25 be unblocked. This feature is controlled by the PC's virus scan software.

(1) To unblock Port 25 contact your IT manager or try the following:

- (a) Right click on your Virus Scan icon in your task bar, and then select Virus Scan Console.
- (b) Then select Access Protection by double-clicking, then uncheck Prevent mass mailing worms from sending email (Port 25) from the access protection properties window.

(2) Please create this account in your mail server so that it will be a valid email address in their server:

WizardAlarm@dicksondata.com

(3) You are now ready to set up text/email addresses

iii) **Step 2: Setting Up Text/Email Addresses:**

(1) In WiZARD2.4 Go to Tools, Email/Text Admin. The Email/Text Account window will open

(2) Select Type: Email or Text

(a) Email

- (i) Enter complete email address
- (ii) Description allows for further identification of who the email address belongs to.
- (iii) Click on Save to add
- (iv) Click on Add New to add another email or text address or close the window when done

(b) Text

- (i) Enter complete cell phone number. 1 before the area code is not required.
- (ii) From the drop down box on the right, double click on the cell phone service provider for the cell phone number. NOTE: If the provider is not listed, go to their website to see text protocol.
- (iii) Description allows for further identification of who the text address belongs to.
- (iv) Click on Save to add
- (v) Click on Add New to add another text or email address or close the window when done

iv) **Step 3: Adding Email Alert to Loggers:**

**NOTE: If the Logger has already been setup and placed in its target location it does NOT need to be brought back to the host PC. This change can be made wirelessly.**

- (1) From the Equipment Status Screen right click on the Logger and select Edit
- (2) In the Set Email/Text Alert box there are 6 Email Tabs. Up to 6 different Email/Text addresses can be designated per Logger.  
NOTE: An email address can be assigned to multiple Loggers.
- (3) Click on a tab to open and select desired email/text address from the dropdown box.
- (4) Once all email/text address have been assigned, select the type of alerts you wish to be notified of by checking the box next to that condition in the Email/Text Alert Conditions.
- (5) Click on Save Changes & Start to save changes.
- (6) The Updating Logger popup indicates that the changes have been saved. Click OK
- (7) WiZARD2.4 will now send an email/text message to all email/text addresses assigned to that Logger when the alarm condition is met.
- (8) Inform all email recipients to add [WizardAlarm@dicksontdata.com](mailto:WizardAlarm@dicksontdata.com) to their email contact list to ensure that it is not blocked.

v) **Email/Text Maintenance:**

- (1) To view which email/text addresses have been assigned to each Logger, go to Setup and click on the View Email/Text button. This window will show address and which conditions have been set. Columns can be expanded by moving the cursor over the column header vertical lines and dragging. Double clicking on a Logger will open the Edit screen.
- (2) To delete an email from a specific Logger, go into Logger Edit mode, select the Email Tab for that address, highlight address and delete. To delete an address from all Loggers, go to Tools, Email/Text Admin, and select address from the Email Address dropdown box and press Delete. This will delete the account and remove it from all Loggers as well.
- (3) An email/text address can not be changed. If an address needs to be modified the original address must be deleted and the change added as a new address.

vi) **Not Receiving/Sending Email/Text Notification:**

- (1) Have you received an error message?
  - (a) No:
    - (i) Check the target email address and look in the spam folder. Make sure to add the [WizardAlarm@dicksontdata.com](mailto:WizardAlarm@dicksontdata.com) to your contacts list.
    - (ii) Clear the alarm pop up and try again.
  - (b) Yes:
    - (i) If you are using an ISP (Internet Service Provider) mail server you may be restricted from sending out emails

generated by WiZARD2.42. Many ISP's block port 25 in order to block spam. This does not apply in all cases. If you do not receive email/text notification of alarm conditions and you receive an error message such as: *The message was unable to deliver to (target email address) due to email exception. The IP you are using to send mail is not authorized. . .*, then you will need to contact your internet service provider for their socks proxy server address. This is a non-dynamic IP address. Once you have been given an IP Address go to: Tools, System Settings. A box for Mail Server IP Address is located at the bottom of the System Settings window.

- (ii) Contact your IT administrator. Some administrators tightly control the type of emails that can be sent/received by the server.

**b) Secure Login / Time Out**

- i) WiZARD2.4 administrator can create user login ID's and passwords.
- ii) Go to Tools, Login Admin to create, change and delete user logins.
- iii) User Level:
  - (1) Administrators can add and edit Loggers and Repeaters.
  - (2) Standard Users can only view settings and logged data.

**c) Encrypted Database**

- i) The WiZARD2.4 database is the location where all logged data is stored. Once logged data is sent by the Logger, the saved logged data can not be modified or deleted.
- ii) Regular database backups are recommended to ensure that saved logged data is not lost. See section 12 for backup instructions.

**d) Audit Trail**

- i) An encrypted log file keeps a record of all user logins and activity while working in WiZARD2.4. This file is updated automatically and can not be turned off.
- ii) The audit trail can be found in Tools, View Audit File

**e) Logger Validation**

- i) All graphed and tabular data is stamped with the logger serial number and all data points are marked as either valid (Y) or in-valid (N).
- ii) A logger that is out of calibration is considered In-Valid.
- iii) Loggers calibrated via SW400 software can not be validated and are therefore invalid.

## **10) Software Upgrades and Un-installation**

### **a) Upgrades**

- i) The Software can be uninstalled and reinstalled without affecting the installed Receiver, Loggers and Repeaters. Saved logged data will not be removed.
- ii) To upgrade software, simply insert the new software CD and run the installation program.

### **b) Uninstall Software**

- i) Go to Control Panel – Uninstall a Program.
- ii) Click on Dickson WiZARD2.4
- iii) An uninstall utility will pop up. Follow commands
- iv) Uninstalling the software will not remove the database, audit trails or configure1.ini file. If these files need to be removed they can be found in:
  - (1) Windows XP PC's: c:\program files\dickson\dickson wizard\
  - (2) Windows Vista PC's:
    - (a) If User Account Controls have been turned off, go to: c:\program files\dickson\dickson wizard\
    - (b) If User Account Controls have been left on, right click on the Windows Start icon and click on Explore to access virtual memory. Go to: c:\users\user login ID\AppData\Local\VirtualStore\Program Files\Dickson\Dickson Wizard\
  - (3) Windows 7 PC's:
    - (a) If "Show Hidden Files" is active, go to: c:\program files\dickson\dickson wizard\
    - (b) If "Show Hidden Files" is inactive, select "Show Hidden Files" by opening Folder Options, click the View tab, select "Show Hidden Files, Folders and Drives", click Apply then OK. From explorer go to: c:\users\user login ID\AppData\Local\VirtualStore\Program Files\Dickson\Dickson Wizard\
  - (4) **WARNING: Deleting the Dickson Wizard folder will result in the deletion of all saved logged data and the network setup.**

## 11) Calibration

- a) Your instrument was carefully tested and calibrated before being shipped from the factory.
- b) **Only the Loggers require calibration.**
- c) Dickson offers 1pt, 3pt and Ultima 3pt NIST with before and after readings. Dickson can also provide calibrations at specific temperature and humidity points. Call Customer Service at (630) 543-3747.
- d) User 1pt adjustments can be made using SW400 Logger Calibration Software. To purchase, contact Customer Service.

NOTE: WiZARD SECURE will show all loggers calibrated via SW400 as Invalid.

## 12) Viewing Logged Data on a Network

- a) The WiZARD2.4 stores logged data in a database. If you have an internal network other individuals can view saved data at their PC. Individuals running WiZARD2.4 Network will not be allowed to change/add/edit Loggers and Repeaters, but they can view logged data in table and graph mode and export data.
- b) To setup WiZARD2.4 Network:
  - i) At the Host PC go to Tools / System Settings
  - ii) Under Map DB Location, enter a network location on your network where a copy of the WiZARD2.4 DB can be stored.

Note: The first backup is not saved until the backup interval has passed. So if you elect to save a copy of the database every 15 minutes, the first copy will be written after 15 minutes have passed.
  - iii) Select the number of minutes in which a copy of the database should be written to the network location. (Network WiZARD2.4 users will not see the most current data or alarm status since they are looking at a copy of the DB)
  - iv) Press OK
  - v) Take the WiZARD2.4 software CD to a different PC on the network and open.
  - vi) Open the network folder and double click on the setup file.
  - vii) WiZARD2.4 Network will install.
  - viii) Open WiZARD2.4 Network via the Desktop Icon
  - ix) A window will pop up asking you to map the location of the database. Enter the Network address assigned at the Host PC.
  - x) The user can now see historical data saved to the database.

### **13) Database**

#### **a) Backups**

- i) The WiZARD2.4 Database is encrypted, meaning that the only way to view data saved to it is via WiZARD2.4 software and WiZARD2.4 Network software.
- ii) Once data is saved to the database, it can not be deleted.
- iii) There are two available methods for backing up the database:
  - (1) Tools/Dataset Backup will allow you to create one time backups.
  - (2) Tools/System Settings/Map DB Location allows for regularly scheduled backups.

#### **b) Size Limitations**

- i) When the database reaches 1,000,000 records, you will receive an alarm indicating that the database is very large and should be saved and cleared to ensure that the PC does not become sluggish or lock up.
  - (1) Go to Tools/Dataset Backup and backup a copy of the database.  
Tip: Change the name of the database to one that will indicate the time range of data saved to it.
  - (2) Once saved, click on Clear Table. This will clear all of the data points currently saved in the active database that have just been saved to the backup database.
  - (3) To view the backed up copy, go to section 11 “Viewing Logged Data on a Network” for details on installing the WiZARD2.4 Network software on a PC and viewing archived data.

**The WiZARD2.4 System Installation is now complete. The remainder of the manual will provide an overview of WiZARD2.4 software features.**

### **14) Helpful Tips**

#### **a) Loggers**

- i) The Loggers are asleep unless taking a reading or sending logged data.
- ii) The maximum amount of time between transmissions is 5 minutes.
- iii) If a Logger is taking a reading every 15 minutes
  - (1) It will wake up every 5 minutes to talk to the Receiver – updating the Time of Last Transmission
  - (2) It will wake up every 15 minutes to take a reading.
  - (3) The time difference between Time of Last Transmission and Time of Last Reading can be up to 2x the sample rate. (The larger the sample rate the larger the time gap between Time of Last Transmission and Time of Last Reading.)
- iv) Lost Communications
  - (1) When the Logger has lost communications with the Receiver, the software will try 3x to communicate before issuing an alarm.
  - (2) When a Logger has lost communications, but has been operating normally up to that point, try the following:

- (a) Go to the logger and hold down the Push-to-Start button for 10 seconds. This will force the logger to send a signal. Go back to the base PC and see if the Time of Last Transmission & Reading have updated. If this does not work try step b below.
- (b) Take your Signal Sensor to the logger location and verify that it has a good signal to the target Receiver or Repeater. Something in the environment may have changed that is affecting the signal.
- (c) Bring the Logger back to the PC and connect it via USB to Clear.
- (3) If the Logger has lost communications after being moved, it is most likely out of range and a Repeater will be required.
- v) Changing/Clearing the Logger Wirelessly.
  - (1) When a logger is cleared or changed, the Receiver holds on to the change until the logger wakes up to send data. The Receiver will try 3x to send a clear or change command. If it is unsuccessful, a lost communication error will appear. Connect the logger via USB and change or clear the logger.
- b) Repeaters
  - i) Repeaters always display on the Equipment Status Screen. Unless they have been made inactive, they can not be hidden.
  - ii) If a repeater has been taken out of service, it can be made Inactive as long as no other Active devices are still connected to it. Use the Structure screen to see what other devices are connected to the Repeater.
  - iii) Repeaters will communicate with the Receiver every 5 minutes if no loggers are connected to it, or per the communication interval of the logger(s) connected to it.
  - iv) If all of the loggers connected to a Repeater have a lost communication alarm, it is most likely the Repeater that is locked up.
    - (1) Check the logger to make sure it is connected to a stable AC power source – Repeaters should not be left on battery power.
    - (2) Use the Signal Sensor to check the signal strength of the target Repeater or Receiver.
    - (3) Bring the Repeater back to the base PC, connect via USB and Clear.

## 15) Software Summary

- a) Equipment Status Screen:
  - i) View real time status of all Loggers and Repeaters.
  - ii) Right click on any Logger to view logged data in a Graph, Table or to Edit Unit setup
  - iii) Data included in on the Equipment Status Screen:
    - (1) **Name:** User Defined Name of Logger/Repeater
    - (2) **Location:** User Defined Location of Logger/Repeater
    - (3) **Time of Last Transmission:**

- (a) Date and Time of last transmission. Will show in red if communications with a Logger or Repeater are lost.
- (b) Will display “no data” if Logger is waiting for push-to-start, if unit has not yet made first transmission or if the Logger was edited and/or cleared and is waiting for new data.
- (c) All Loggers & Repeaters will send a transmission every 5 minutes, even if there are no readings to send.

(4) **Time of Last Reading:**

- (a) Displays time of last reading sent by Logger.
- (b) Will display “no data” if Logger is waiting for push-to-start, if unit has not yet made first transmission or if the Logger was edited and/or cleared and is waiting for new data.
- (c) **NOTE:** Time of Last Transmission can be more current than Time of Last Reading if the Sample Interval is greater than 5 minutes.
- (d) The Time of Last Transmission and Time of Last Reading will never match. The longer the sample rate interval, the greater the disparity between transmission time and reading time.

(5) **Current Temp/RH:** Most current reading displayed

(6) **Minimum and Maximum Temp/RH:** Displays Min/Max readings taken since Logger was activated or since Min/Max was reset. Out of range conditions will show in red.

(7) **Reset Min/Max:** Min/Max readings can be reset by clicking on the box in the column. No logged data will be lost, but Min/Max will only display readings taken since Reset was selected.

(8) **Battery Level:** A battery level of Good or Low will display. A Low reading will show in red. Batteries should be changed. If there are no batteries or if the power switch is in the off position this alarm will display continuously.

(9) **Calibration Due Date:** The calibration due date is 6 months from the last date of calibration. An item due for calibration will display the due date in red. The Calibration Due Date can be modified in the Logger/Repeater Edit screen.

(10) **Status:** All units should show as Active unless taken out of service and made InActive by the user. Inactive Loggers can be hidden by selecting “Hide” in Tools/System Settings/Inactive Loggers.

(11) **Clear Alarm:** Box will show in red when any of the below alarm conditions shown exist. Clicking on the box will temporarily clear the alarm until the next transmission.

(12) **Alarm Conditions:**

- (a) Lost Transmission
- (b) Low Battery
- (c) Calibration Due
- (d) High/Low Alarm

iv) Sort table by clicking on any column header.

- v) Alarm Conditions automatically move to the top of the table.
- b) **Graph Mode:**
  - i) **Right click on Logger in Equipment Status Table and select Graph**
    - (1) Allows for multiple Loggers to be viewed on one graph. Hold the control key down while clicking on and highlighting desired Loggers, then click on Open.
    - (2) Multiple graphs can be opened and viewed at the same time
  - ii) **Menu Options:** Home, Zoom, Tile, Format, Save, Export, Print, Table, Report
  - iii) **Home:** Takes you back to the Equipment Status Screen
  - iv) **Zoom:**
    - (1) Default: The most recent 2 days of data will automatically display on the graph when opened. This default can be changed by selecting Format/Defaults and changing the range of time to display.
    - (2) Zoom In: Select this option to activate the Magnifier icon. Click and drag over graph area to zoom.
    - (3) Zoom Out: Select to zoom out to undo previous zoom.
    - (4) UnZoom: Will return the graph to the original display state.
    - (5) Zoom Date: Enter a Start and End date for the time range you wish to view.
  - v) **Tile:** View up to 6 graphs on one screen.
  - vi) **Format:**
    - (1) General, Axis, Font & Style: Basic graph formatting utility can be applied to current or all open graphs.
    - (2) Defaults Tab allows display format of
      - (a) Time (Standard or Military)
      - (b) Date (MM/DD/YY or DD/MM/YY)
      - (c) Range of Time to Display: Default for all new graphs.
  - vii) **Save:** Will save a JPG of current open graph.
  - viii) **Export:**
    - (1) Will create a:
      - (a) Text Delimited file (recommended for large amounts of data)
      - (b) Excel file with a picture of the graph and a table of all data points
    - (2) To save current graph only, click on Export and select Selected Graphs.
    - (3) To select more than one graph, close Export window, hold down the CNTL key while clicking on the desired graph tabs to highlight then click on Export and select Selected Graphs to save.
    - (4) To save all open graphs, click on Export and select All Open Graphs
  - ix) **Print:**
    - (1) Will print current, selected or all open graphs.
    - (2) To print current graph only, click on Print and select Selected Graphs. To print more than one graph, close Print window, hold

down the CNTL key while clicking on the desired graph tabs to highlight then click on Print and select Selected Graphs to save.

- (3) To print all open graphs, click on Print and select All Open Graphs
- x) **Table:** Will open a table of data points for each open Logger. Will display date range of data points in the table that are displayed on the graph.
- xi) **Report:** Creates a summary of data shown on the current graph.
  - (1) Logger Summary: Includes Logger ID, Name, Location, Number of Data Points Collected, Start & End Date/Time, Total Time
  - (2) Data Summary: Max, Min, Average, Standard Deviation, Mean Kinetic Temperature for each active channel.
  - (3) Alarm Summary: Alarm Min/Max Settings, Time Over Alarm, Longest Time Over Alarm and Number of Times Over Alarm.
    - (a) Mean Kinetic Temperature (MKT) formula:

Expressed as:

$$\frac{\Delta H/R}{-ln(\frac{1}{n} \sum_{i=1}^n e^{-\Delta H/RT_i})}$$

Where

$\Delta H$  = activation energy (typically from 60 to 100 kJ/mol for solids and liquids) Use 83.14472 kJ/mol

$R$  = 8.314472 J/mol-K (universal gas constant)

$T$  = temperature in degrees K

$n$  = the number of sample periods over which data is collected

note:  $ln$  is the natural log and  $e_x$  is the natural log base.

(b) Standard Deviation (Std. Dev.) formula:

$$\text{Std Dev} = \sqrt{\frac{\sum_{i=1}^n (R_i - \text{Avg})^2}{n}}$$

average is already computed and will be labeled Avg.

data points collected is already computed and will be labeled N

the number of each individual reading will be labeled with a suffix n

an individual reading will be labeled R, so a specific nth reading will be labeled  $R_n$

c) **Table Mode:**

- i) **Right click on Logger in Equipment Status Table and select Table**
- ii) Multiple tables can be opened and viewed at the same time.
- iii) Easy export to Excel
- iv) Menu Options: Home, Zoom, Tile, Export, Graph
  - (1) **Zoom:**
    - (a) Default: The most recent 2 days of data will automatically display in the table when opened. This default can be changed by selecting Format/Defaults and changing the range of time to display.

- (b) **Zoom In:** Select this option to activate the Magnifier icon. Click and drag over graph area to zoom.
- (c) **Zoom Out:**
- (d) **UnZoom:** Will undo last zoom operation
- (e) **Zoom Date:** Enter a Start and End date for the time range you wish to view.
- (2) **Tile:** View multiple Logger summary tables on one screen.
- (3) **Export:** Will save an Excel file with all displayed data points from the table currently open.
- (4) **Graph:** Will open all open tables as Graphs.
- d) **Structure Screen:**
  - i) View relationship between Receiver, Repeaters and Loggers
  - ii) Unit Name, ID, Model Number and location are displayed
  - iii) Double click on Repeaters and Loggers to Edit Setup
- e) **Setup Screen:**
  - i) View all installed Loggers and Repeaters
  - ii) Will toggle between Alarm Settings and Email/Text Assignment tables via “View(Hide) Email/Text button
  - iii) Displays alarm settings for all units
  - iv) View Email/Text assignments
  - v) Double click on any Logger/Repeater to edit setup
- f) **Tools:**
  - i) **Dataset Backup:** Allows for manual backups of WiZARD2.4 database
  - ii) **Systems Settings:**
    - (1) Set Temperature Default: F or C
    - (2) Inactive Loggers: Hide Loggers/Repeaters on the equipment status screen that have been made inactive.
    - (3) Map DB Location: Can be used to schedule regular backups and used to create secondary database used for WiZARD2.4 Network software
    - (4) Mail Server IP Address
  - iii) **Email/Text Account (Secure Only):** Address add/remove tool
  - iv) **Login Admin (Secure Only):** Allows WiZARD2.4 administrator to assign rights to users
  - v) **View Audit File (Secure Only):** Displays a read only audit trail of all user inputs.
  - vi) **Set Time Out (Secure Only):** Timed screen lock for additional security.

## 16) Trouble Shooting:

- a) **Can not add the Logger/Repeater. “Unrecognized USB Device” or “USB Device Not Recognized” error message pops up when I plug in the USB.**
  - i) If the Logger has a remote probe, make sure that the probe is plugged all of the way in. Double check to make sure it is secure (the probe should not unplug easily).
  - ii) If the probe is secure or the Logger does not have a remote probe

- (1) Unplug the USB from the Logger/Repeater
- (2) Remove AC power and turn the unit off
- (3) Leave for 1 minute.
- (4) Reconnect the USB cable
- (5) Add Logger/Repeater window should open.
- (6) Add unit.
- (7) Unplug from USB per instructions, turn on and connect AC power (if needed)
- iii) If the previous setup does not work, there could be a USB issue with the PC. Try a different USB port or unplug unit from USB, shutdown WiZARD2.4 software and reboot PC.
- b) **Checking PC Power, Display and Update Settings:**
  - i) Power Settings:
    - (1) From Control Panel select System & Security / Power Options / Create a Power Plan
    - (2) Select High Performance and click on Next
    - (3) Select NEVER for Put the Computer to Sleep / Save
  - ii) Display Settings:
    - (1) Right click on Desktop and select Personalize / Screen Saver
    - (2) Select None and Save
  - iii) Update Settings:
    - (1) From Control Panel select Security / Windows Update
    - (2) Select “Turn automatic updating on or off”
    - (3) Under Important Updates, select “Download updates but let me choose whether to install them”. Save
- c) **Software locked up while adding Receiver, Logger or Repeater.**
  - i) This should not happen. You will need to CNTL/ALT/DEL to close the WiZARD2.4 Software
  - ii) If you have any other applications open (including internet software) close it down.
  - iii) If the system locked up while adding the Receiver:
    - (1) Disconnect the usb cable from the Receiver.
    - (2) Unplug the AC adapter and turn the power switch to off – leave for 1 minute.
    - (3) Reconnect the AC adapter and turn the power switch to on.
    - (4) Reconnect the USB.
    - (5) Open the WiZARD2.4 software and wait for the Receiver to connect
  - iv) If the system locked up while adding a Logger or Repeater:
    - (1) Disconnect the usb cable from the Logger/Repeater.
    - (2) Unplug the AC adapter and turn the power switch to off – leave for 1 minute.
    - (3) Open the WiZARD2.4 software and wait for the Receiver to connect.
    - (4) Reconnect the AC adapter and turn the power switch to on.
    - (5) Reconnect the USB to the Logger/Repeater and add.
- d) **Field Error  when adding/editing a Logger/Repeater**

- i) When field data is not valid, a red circle with an exclamation point in the middle will pop up.
- ii) To find out what is wrong, place your cursor over the red circle. A balloon will open explaining what needs to be corrected.
- e) **Where are the database and log files stored?**
  - i) Windows XP PC's: c:\program files\dickson\dickson wizard\db
  - ii) Windows Vista PC's:
    - (1) If User Account Controls have been turned off, go to: : c:\program files\dickson\dickson wizard\
    - (2) If User Account Controls have been left on, right click on the Windows Start icon and click on Explore to access virtual memory. Go to: c:\users\user login ID\AppData\Local\VirtualStore\Program Files\Dickson\Dickson Wizard\
  - iii) Windows 7 PC's:
    - (a) If "Show Hidden Files" is active, go to: : c:\program files\dickson\dickson wizard\
    - (b) If "Show Hidden Files" is inactive, select "Show Hidden Files" by opening Folder Options, click the View tab, select "Show Hidden Files, Folders and Drives", click Apply then OK. From explorer go to: c:\users\user login ID\AppData\Local\VirtualStore\Program Files\Dickson\Dickson Wizard\
- f) **My Receiver became disconnected from the PC. After I reconnected it, "USB Device Attached" shows in the lower left corner and my Loggers are not communicating.**
  - i) Once the Receiver has lost its connection with the PC, reconnect it then close down the WiZARD2.4 software and then reopen. The Receiver should now show as connected.
- g) **Can I ever turn off the host PC?**
  - i) It is recommended that the host PC remain on 24/7 and rebooted a couple times per month.
  - ii) If the PC is turned off for a period of time there is a possibility that some data may be lost. The Loggers will save logged data until full and will then write over the oldest saved data with new data.
- h) **I am getting a lot of Lost Communication errors but I have not lost any data.**
  - i) The strength of the signal between the Logger and Receiver/Repeater is intermittent. Find a new location for the Logger or use a Repeater to boost the signal.
- i) **I accidentally pressed the Push-to-Start button while my Logger was on and already logging. What will happen?**
  - i) This will not affect the logger. The logger will send a transmission and updated Time of Last Transmission. No data will be altered or missed.
- j) **What do the LED colors mean**
  - i) 10 quick blue/red/green flash = Unit Powered On

- ii) Blue Flash = Logger/Repeater sending data upstream to Receiver/Repeater; Receiver being polled by PC
- iii) Green Flash = Receiver/Repeater acknowledging receipt of data from Logger/Repeater;
- iv) 4 Long Green Flashes = Logger/Repeater acknowledging wireless change
- v) Blue/Red Flash = Logger/Repeater trying to send data upstream but not getting through. Unit is most likely out of range.
- vi) Solid Red = Receiver buffer is full Loggers and Repeaters can not send new data till buffer is cleared. (If Receiver no longer shows as connected see support section below)
  - (1) This can happen, especially if the PC or Receiver was down and the loggers are sending saved data. If you do not see the Time of Last Transmission and Reading update, the Receiver may be locked up. Remove the USB and AC Power from the Receiver and turn it off. Wait one minute. Turn the Receiver on, and connect the AC Power and USB cables. The Receiver should operate normally.
- vii) Red Flash: Logger/Repeater send data failed
  - (1) This can happen. If the red flashing persists, turn off the unit and remove AC power (if required) and allow the unit to sit for 1 minute. Turn the unit back on and plug in AC cable. The logger should resume normal operation.
- viii) 4 White Flashes every minute: USB no communication with Receiver.
  - (1) Remove USB cable from Receiver
  - (2) Remove AC power and turn off Receiver.
  - (3) Allow the Receiver to sit for one minute.
  - (4) Turn Receive on and connect the AC Power and USB cables.
  - (5) The Receive should operate normally.
  - (6) If not, repeat steps 1-4 above but move the USB cable to a different port on the PC.

k) **Some of my Loggers are behind the others while sending saved data points.**

- i) If the system was shut down and now the Loggers are sending saved data, some Loggers will get saved data through faster than others. Depending on the amount of logged data the Loggers need to send, the sample rate and the number of Loggers on the system, catching up could take a number of hours. Eventually all Loggers will catch up and communications will resume normally.
- ii) If the Logger is still far behind and not catching up, you can clear the logger wirelessly – this will reset the logger time/date. Note: Clearing the logger will delete any logged data saved on the logger.

l) **Not Receiving/Sending Email/Text Notification:**

- i) Most users on a network with a mail server will not require an IP address.
- ii) If you are using an ISP (Internet Service Provider) mail server you may be restricted from sending out emails generated by WiZARD2.4. Many

ISP's block port 25 in order to block spam. This does not apply in all cases. If you do not receive email/text notification of alarm conditions and you receive an error message such as: *The message was unable to deliver to (target email address) due to email exception. The IP you are using to send mail is not authorized. . .*, then you will need to contact your internet service provider for their **socks proxy server address**. This is a non-dynamic IP address. Once you have been given an IP Address go to: Tools, System Settings. A box for Mail Server IP Address is located at the bottom of the System Settings window. Enter the IP Address and save. The error message should go away and email/text notifications should be delivered.

**k) Problem in writing read command to Receiver:**

- i) Make sure you are running XP Service Pack 3. Older XP versions will result in failure when Receiver tries to communicate with the software.
- ii) The Receiver is locked up and can not communicate with the PC.
- iii) Remove USB from Receiver for 5 seconds and reconnect. (Do not remove AC power)
- iv) Wizard should see Receiver and show as connected.
- v) If the above steps fail, remove USB and AC power from Receiver
- vi) Turn unit off and leave for 1 minute.
- vii) Return Power (turn on and plug in AC)
- viii) Plug back in USB
- ix) NOTE: removing power may result in some lost data

**l) How do I reset the Audible Alarm on my logger?**

- i) Press down on the Push-to-Start button on the logger for two seconds.
- ii) The alarm will reset for the duration of the alarm delay period (Alarm delay is set in the logger setup/edit screen)
- iii) If the alarm condition still exists after the alarm delay period has passed then the alarm will sound again, otherwise the logger will continue to log normally.

## 13)FCC Compliance Statement

### **Compliance Statement (Part 15.19)**

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### **Warning (Part 15.21)**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **FCC Interference Statement (Part 15.105 (b))**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## **Section 14**

### **RF SAFETY CALCULATION / MPE CALCULATION (MAXIMUM PERMISSIBLE EXPOSURE)**

#### **RF Exposure (OET Bulletin 65)**

To comply with FCC RF exposure requirements for mobile transmitting devices, this transmitter should only be used or installed at locations where there is at least 20cm separation distance between the antenna and all persons.