

# **Dickson WiZARD2 Wireless System with 21CFR11 Compliant Secure Software Rev 14 Preliminary Manual**

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

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**IMPORTANT STARTUP NOTES - PLEASE READ:**

1. Full administrative rights are required on the host PC in order to install and setup the WiZARD2 system. We recommend against using this system on a PC with more than one user login.
2. We strongly recommend that the PC hosting the WiZARD2 software and Receiver be a dedicated PC that is not used for other wireless or SQLite applications (wireless devices such as a mouse and keyboard will not interfere with the WiZARD2). Firefox, Internet Explorer and other software applications that use SQLite have been found to compete for resources and can lock up the PC.
3. 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".
4. This system has been tested on and approved for Windows XP, Vista and Windows 7 PC's
5. Before you begin installation, have the Receiver, Logger(s) and any Repeater(s) at the base computer where you plan to install the WiZARD2 Software and Receiver.
6. Logger/Receiver/Repeater signal strength performs best when mounted high up on a wall or on the ceiling.

## **System Component Overview:**

### **Host PC:**

- PC where the WiZARD2 Software and Receiver are installed and Loggers and Repeaters are setup.
- Only one WiZARD2 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 a network and the non host PCs must have WiZARD2 Network Software installed. See section 11 below for more information.
- This PC must be on 24/7 in order for the WiZARD2 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 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 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 system to operate properly.

### **Receiver (WR220/225):**

- WR220 features WiZARD2 Software. WR225 features WiZARD2 SECURE 21CFR11 Compliant Software.
- The Receiver forwards data packets from the Loggers to the WiZARD2 database.
- Must always be on and connected to the PC via a USB cable. It is recommended that it be powered via the AC adapter and have Backup Batteries installed.
- Receivers do not require calibration.

### **Logger (WT200/220/240/WH220/225/245):**

- Take temperature or temperature/humidity sample points 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 operating range of up to 200 ft 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.

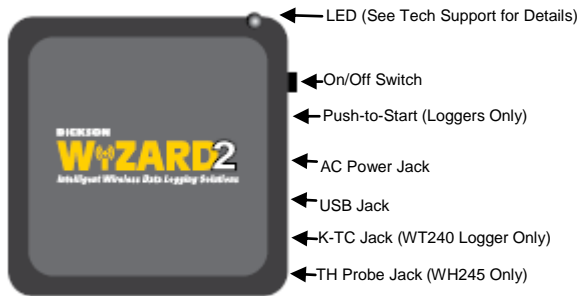
### Repeater (WA200):

- 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 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.

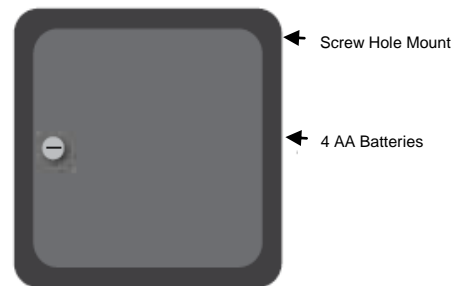
### Signal Sensor (WS200):

- 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
- Highly recommended for users with multiple Loggers or Loggers over 200 ft. from the Receiver

#### FRONT



#### BACK



## 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".
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
- 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.

## 2) RECEIVER: Installing the Receiver (WR220/225)

**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 Software has been closed first.

- a) Insert 4 AA batteries (included with instrument) into battery compartment on back of unit.
- b) Slide toggle switch to the ON position (this will allow Receiver to use battery backup power if AC power is lost)
- c) LED will flash blue/red/green for 2 seconds
- d) Plug in AC adapter to Receiver and a local outlet.
- e) Connect USB cable to available USB port on PC and to Receiver
- f) Open WiZARD2 software via desktop shortcut
- g) Enter Login ID: **admin** (WiZARD2 SECURE Only)
- h) Enter Password: **Dickson** (WiZARD2 SECURE Only)
- i) Click OK
- j) Status Screen will open.
- k) Lower left corner in WiZARD2 software will read "Receiver Update Mode"
- l) "Receiver ID Entry" window will pop up.
- m) 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
- n) Click OK
- o) 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.
- p) The Receiver is now connected.
- q) **NOTES:**
  - i) The Receiver will always require power directly from the AC adapter or USB connection.
  - ii) Batteries for backup are recommended to prevent the system from locking up if there is a sudden loss of power or brownout.
  - iii) The Push-to-Start button is non-functional on the Receiver.

**If you purchased a Signal Sensor WS200, follow the steps below if not skip this section.**

**3) SIGNAL SENSOR (WS200): Save time and possible lost data by using the Signal Sensor before installing Loggers and Repeaters.**

- a) Once the Receiver has been installed, go to each designated Logger location, with the Signal Sensor, to determine if the Receiver signal strength will be strong enough to reach the Logger 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 two bars or less show or if the signal strength changes frequently 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 and link each Logger to its designated Repeater when installing.
- f) The Signal Sensor is ideal for determining if the target Logger location is within range of the Receiver or Repeater.
- g) **Signal Sensor Operation:**
  - i) Press the On/Off button once on your signal sensor to turn on.
  - ii) Move to the location where you wish to place a Logger or Repeater.
  - iii) Stand at the target Logger/Repeater location for a couple of 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 more than two bars are displayed, the target location is good.
  - v) If a Repeater or Receiver can not be located or displays two bars or less, move closer to known Repeater or Receiver locations until a stronger signal is found.

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

**Yes:** See Repeater Installation below

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

#### 4) Repeater Installation (WA200)

If a Logger is found to be out of range by the Signal Sensor, will be more than 200 feet from the Receiver, 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 Software has been closed first.

- a) Insert 4 AA batteries (included with instrument) into battery compartment on back of unit.
- b) Slide toggle switch to the ON position (this will allow Repeater to use battery backup power if AC power is lost)
- c) LED will flash red/blue/green 2 seconds.
- d) Plug in AC adapter a local outlet and plug adapter jack into Repeater
- e) Connect USB cable to available USB port on PC and to Repeater
- f) Lower left corner of WiZARD2 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.**

- g) The Add Logger/Repeater window will open
- h) The Repeater installation screen is the same as the Logger installation screen but only requires the following information:
- i) **Connect Via:** Tells the Repeater where to forward data. Select Receiver or any installed Repeater.
- j) **Name:** Any name you wish to give the Repeater: Alpha/numeric field 15 characters.
- k) **Unit ID:** Enter any ID you wish (4 digits only (0-9 and A-F)
  - i) **Note:** "0000" and "FFFF" are not valid ID's
- l) **Location:** Description of where Repeater is to be placed: Alpha/numeric field 20 characters.
- m) **Status:** Active
- n) All other fields are for Logger setup only and are be grayed out. Once screen is complete click on SAVE CHANGES AND START button.
- o) A window will pop up "Adding Repeater".
- p) 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.
- 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.
- iv) The Push-to-Start button is non-functional on the Repeater.

## 5) Logger Installation (WT200/220/240/WH220/225/245)

**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 Software has been closed first.

- a) Insert 4 AA batteries (included with instrument) into battery compartment on back of unit. (For models WT240 & WH245 this will allow Logger to use battery backup power if AC power is lost)
- b) Slide toggle switch to the ON position.
- c) LED will flash red/blue/green for 2 seconds.
- d) Connect USB cable to available USB port on PC and to Logger
- e) 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.**

- f) 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
  - 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) **Maximum Transmission Frequency:** Select 5, 10 or 15 minutes (Will tell the Logger to communicate with the Receiver even if there are no new data points to send. Ensures continuous communications.)
  - x) **Audible Alarm On/Off:** Applies to models WT240 and WH245 only.
  - 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 Software only – WR225. 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.
  - g) Once screen is complete click on SAVE CHANGES AND START button. A window will pop up "Adding Logger".
  - h) 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.
  - i) The Logger now shows up in the WiZARD2 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 WT240 & WH245 only)
    - ii) **DO NOT turn off the Logger when moving it to the target location.** If using a WT240 or WH245, 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.
    - 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) InActive Loggers/Repeaters

### a) Making a Logger Inactive:

- i) Loggers and Repeaters can not be uninstalled from the WiZARD2 database.
- ii) 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.

### 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 setting can also be changed at this time) and click on Save Changes and Start.
- ii) The Logger will be cleared and updated.

## 7) Editing Logger/Repeater Settings

- a) Once the system has been setup existing Loggers & Repeaters can be modified. All fields except for Unit ID can be modified. There are two options for changing Logger/Repeater setup:
  - i) **Wireless Change:** Allows changes to all fields except for Unit ID and Push to Start
    - (1) **Logger must be actively communicating – no lost communication errors**
    - (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 25 minutes the Edit option is still grey, 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 25 minutes.
      - (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.

- 8) **21CFR11 WiZARD2 Secure Features (WR225)**
- 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) You are now ready to set up text/email addresses
  - iii) **Step 2: Setting Up Text/Email Addresses:**
    - (1) 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 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@dicksondata.com](mailto:WizardAlarm@dicksondata.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@dicksondata.com](mailto:WizardAlarm@dicksondata.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 WiZARD22. 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.

**b) Secure Login**

- i) WiZARD2 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 database is the location where all logged data is stored. Once logged data is sent by the Logger, the logged data can not be modified or deleted.

**d) Audit Trail**

- i) A log file audit.txt keeps a record of all user logins and activity while working in WiZARD2

**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.



## 9) Software Upgrades and Un-installation

### a) Upgrades

- i) The Software can be uninstalled and reinstalled with out affecting the installed Receiver, Loggers and Repeaters. Saved logged data will not be removed.
- ii) To upgrade software, simple 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
- 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: Must 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.**

## 10) 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.

### **11) Viewing Logged Data on a Network**

- a) The WiZARD2 stores logged data in a database. If you have an internal network other individuals can view saved data at their PC. Individuals running WiZARD2 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 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 DB can be stored.
  - iii) Select the number of minutes in which a copy of the database should be written to the network location. (Network WiZARD2 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 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 Network will install.
  - viii) Open WiZARD2 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.

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

## 12) 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 that 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
  - 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
- c) **Table Mode:** 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. **Right click on Logger in Equipment Status Table and select Table**
  - i) Multiple tables can be opened and viewed at the same time.
  - ii) Easy export to Excel
  - iii) 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 and Model Number 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 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 Network software
- iii) **Email/Text Account:** Address add/remove tool
- iv) **Login Admin:** Allows WiZARD2 administrator to assign rights to users

### 13) Technical Support:

- 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 software and reboot PC.
- b) **The WiZARD2 software locked up while adding the Receiver/Logger/Repeater.**
  - i) This should not happen. You will need to CNTL/ALT/DEL to close the WiZARD2 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 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 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.
- c) **Where is 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: Must select "Show Hidden Files" by opening Folder Options, click the View tab, select "Show Hidden Files, Folders and Drives", click Apply and OK. From explorer go to: c:\users\ (user login ID)\AppData\Local\VirtualStore\Program Files\Dickson\Dickson Wizard\db
- d) **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 software and then reopen. The Receiver should now show as connected.
- e) **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.
- f) **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.
- g) **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 transition and updated Time of Last Transmission. No data will be altered or missed.
- h) **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) 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 13k in technical support section below)
  - vi) Red Flash: Logger/Repeater send data failed;
  - vii) 4 White Flashes every minute: USB no communication with Receiver. (See 13k in technical support section below)
- i) **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.

j) **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 WiZARD22. 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

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

- i) The Receiver is locked up and can not communicate with the PC.
- ii) Remove USB from Receiver for 5 seconds and reconnect. (Do not remove AC power)
- iii) Wizard should see Receiver and show as connected.
- iv) If the above steps fail, remove USB and AC power from Receiver
- v) Turn unit off and leave for 1 minute.
- vi) Return Power (AC and turn on)
- vii) Plug back in USB
- viii) NOTE: removing power may result in some lost data

### 13) FCC and Canada Compliance Statements

#### **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.

#### **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.

#### **Industry Canada Statement per Section 4.0 of RSP-100**

The term "IC:" before the certification/registration number only signifies that the Industry Canada technical specifications were met.

#### **Section 7.1.5 of RSS-GEN**

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.