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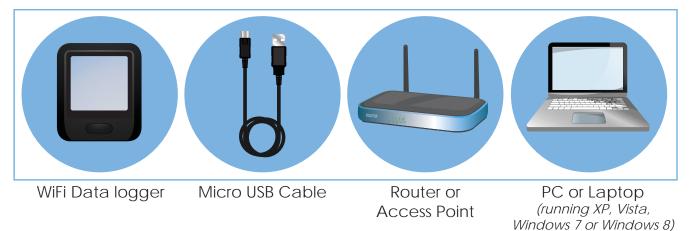
## Hints & Tips

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System Set-Up

### Ensure that you have the following:



### System Set-Up

- You will need the SSID and the password for the wireless network. The password is sometimes referred to as the passphrase or passkey and often found on the rear of the wireless router.
- 2 Download and install the free Diligence WiFi software from www.comarkinstruments.com/software or www.comarkusa.com/software.
- Make sure you 'allow' any security access highlighted by your Firewall or Antivirus program. Your system may automatically request this.

When you have installed the software an icon will be placed on your desktop



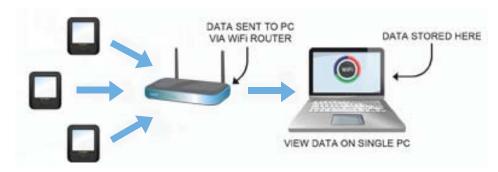
Diligence

### Data Storage Choices

There are two data storage choices for your Diligence WiFi monitoring system: locally on a PC or on the Cloud.

### PC Data Storage

With PC data storage all your data is stored locally on your PC and is kept within your local network. No internet connection is required.

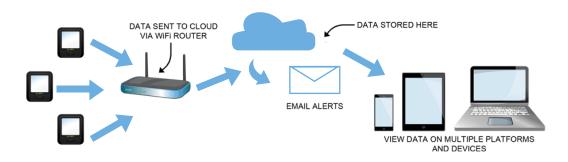


To store data from data loggers on a PC please click 'On This PC' during the set-up process. Please turn to Section 2.0 for detailed instructions for setting up your data loggers for PC storage.



### **Cloud Data Storage**

With Cloud data storage all your data is stored remotely on our secure servers. Data is transfered to our servers through the internet and is then accessible from anywhere via a web browser on any internet enabled device.



To store data from your data loggers on the Cloud please click 'On The Cloud' during the set-up process. Please turn to Section 6.0 for detailed instructions for setting up your data loggers on the Cloud.



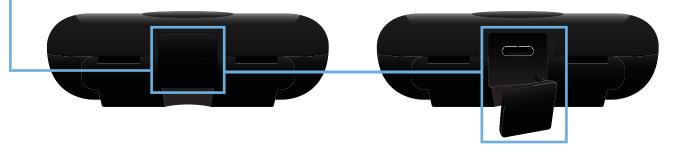
## Section 2.0 Data Logger and Network Set-Up

### This section is for PC Users.

Start the Diligence WiFi software by double clicking the desktop icon.



3 Connect the data logger to your PC using the USB cable provided. The USB socket on the data logger is protected by a rubber bung. Remove this to gain access to the socket.



## Section 2.0 Data Logger and Network Set-Up

Note: If the data logger connects successfully you will see the following screen. If it fails, check the cable is fully connected to the data logger and PC. The software will automatically try again.



### 4 Scanning

When the message 'scanning' appears the data logger is listening for wireless networks that are currently in range. Once scanning has completed a list of available networks will be displayed. If the list is blank press the 'refresh connections' button on the top right.

		- □ ×
((•))	Select a wireless network for your device:	
	WIFI_TEST8 Secured wireless network (WPA2) MAC: A0:21:B7:F0:BC:36	Refresh Connections
	WIFI_TEST5 Secured wireless network (WPA2) MAC: C0:3F:0E:D3:E2:CA	
	Marconi Secured wireless network (WPA2) MAC: C0:3F:0E:C7:EF:BA	
	Cisco-Enterprise Secured wireless network (Enterprise), MAC: 00:30-99-E2-AE-20	
	Device Mac Address: 98.8B.AD.00.27.FE Device Type: WiFi-TH Device Firmware Version: 3.25	
	Enter Advanced Network Options Next Cancel	Next

## Section 2.0 Data Logger and Network Set-Up

5 Select the network you wish to connect to.

- 6 If you use a hidden network simply scroll to the bottom of the list and select 'Join Other Network' and then fill in your network details.
- 7 Enter the password. Press 'Connect'. After the router has successfully connected press 'Next'.

Note: If the data logger fails to connect to your wireless router the following screen will appear. Follow the on screen instructions and check the four points below.

		×
((•))	Select a wireless network for your device:	2
	WIFI_TESTB Secured wireless network (WPA to the COED3-E2-CA	Refresh Connections
	Marconi Secured wireless NOT CONNECTED	
	Pastor of the source of the selected network: 1) Check your password 2) Click on the software refresh button 3) Re-orientate the position of your sensor 4) Ensure your WiFi router is turned on and within range of the sensor	
	CANCEL CONNECT Device Mac Address: 98.8B.AD.00.27.FE Device ? Type: WiFi-TH Device Firmware Version: 3.25	
	Enter Advanced Network Options Next Cancel	Next

- 1) Check your password
- 2) Click on the software refresh button
- 3) Re-orientate the position of your data logger
- 4) Ensure your WiFi router is turned on and within range of the data logger

If you need to configure additional network settings such as a static IP address, tick the Enter Advanced Network Options box before clicking 'Next'.

((•))	Select a wireless network for your device:	
	Marconi2 Secured wireless network (WPA2) MAC: 58:6D:8F:13:54:BF	Refresh Connections
	SensorNetEnterprise Secured wireless network (Enterprise) MAC: 00:23:69:C0:B0:37	
	Marconi3 Secured wireless network (WPA2) MAC: F8:D1:11:84:80:63	
	Marconi Secured wireless network (IVPA2) MAC: CO-3E-0E-C7-EE-BA	
	Password:	eta kaj maj ka
	Show Characters 🔽 Remember Password	김도 정치를 보니.
	Device Mac Address: 98.8B.AD.00.00.73 Device Type: WiFi-TH Device Firmware Version: 3.32	
	Enter Advanced Network Options Next     Cancel	Next

Enter the IP address to configure the data logger along with the Subnet Mask and Default Gateway.

It is also possible to lock the data logger so that it will only connect to one Wireless Access Point. This may be necessary if you have multiple Access Points with the same SSID. Enter the MAC Address of the Access Point.

	_ 🗆 🗡
Advanced Network Options	
These settings are for Advanced users only. Change these options only if you understand the consequences.	
Automatic Device IP Address (DHCP)	
Fixed Device IP Address	
Fixed Device IP Address         192         168         123         321	
Subnet Mask 255 . 255 . 0 . 0	
Default Gateway 192 . 168 . 0 . 1	
Lock this Device to an Access Point	
Lock Device to Access Point       00       :       1A       :       2B       :       4D       :         Mac Address	5E
Cancel	Back Next

### **General Settings**

Section 2.2

1 Enter a name for the data logger, the scale, the sample rate and transmission rate.

	×
GENERAL SETTINGS	
I) Name Device to give it a unique i abc WiFi Sensor	identity (max 12 char.)
(3) Select sample rate NOTE: This will set how often the	<u>1 Minute</u> e device takes readings
4) Select how often the device will o communication reduces battery i	
Battery Life	Cancel Back Next

#### Sample rate

This sets how often the data logger takes a reading. Note: This is not how quickly the data logger transmits the data.

### Frequency of sample transmission

This sets how often the data logger transmits the information back to the PC.

In the example above the data logger takes a reading every 1 minute and logs this information on-board the data logger. Every 5 minutes, the data logger will transmit the readings to the PC.

## Section 2.2.1



	- • ×
TEMPERATURE ALARMS Low alarm On Off	70°C
Select high and low alarms	70°C
	off
Filter Out Unwanted Alarms Delay alarm trigger by <u>No Delay</u> For example, briefly opening the door of a chiller should not cause an alarm, but leaving the door open will!	
An Audit Check is acknowledged by pressing the button on the device for 3	)isable
Cancel Back	Next

### Low / High Alarms

You can set an alarm to be triggered once a data logger exceeds a high or low temperature.

Note: If you try to set the low alarm higher than the high alarm (and vice versa) you will get an error message.

### Alarm Hold

This will hold the data logger in its alarm state even when the temperature has returned to an acceptable range.

For example if the 'High Alarm' is set to 42°C and the data logger rises to 46°C it will trigger an alarm. If the data logger then drops down to 41°C and 'Alarm Hold' is switched on, the data logger will remain in an alarmed state. If 'Alarm Hold' is switched off then the data logger would revert back to its normal state. In this situation you can check missed alarms by reviewing the graph.

### Audit Check

This function will allow a user to record on the graph when a data logger is physically checked. This is acknowledged by pressing and holding the data logger button for three seconds.

Diligence WiFi Hints and Tips

## Section 2.2.1

Alarm Set-Up



	Low alarm	off		_	
	0%RH High alarm	Off			100 %RH
Select high and low alarms	0%RH				100 %RH
The alarm icon will appear on the device when th	ne alarm is triggered				
NOTE: If the hold option is selected the alarm icon will screen until alarm history is cleared manually o		Ala	m hold 🔘	Off	
Filter Out Unwanted Alarms For example, briefly opening the door of a chiller shou cause an alarm, but leaving the door open will!	ld not	Delay alarm trigger by	No Delay		
		Cancel	Back	N	ext

### Low / High Alarms

You can set an alarm to be triggered once a data logger exceeds a high or low humidity level.

Note: If you try to set the low alarm higher than the high alarm (and vice versa) you will get an error message.

### Alarm Hold

This will hold the data logger in its alarm state even when the humidity has returned to an acceptable range.

For example, if the 'High Alarm' is set to 42%RH and the humidity rises to 46%RH it will trigger an alarm. If the reading then drops down to 41%RH and 'Alarm Hold' is switched on, the data logger will remain in an alarmed state. If 'Alarm Hold' is switched off then the data logger would revert back to its normal state. In this situation you can check missed alarms by reviewing the graph.

### Select Probe Type

You can set the type of probe you will be using by selecting the probe number or letter from the dropdown box.

### 4a TC Probe Selection

You can set the type of thermocouple probe you will be using by selecting the probe type from the dropdown box: K, J, N and T.

TEMPERATURE ALARMS Probe Type:

### 4b TP Probe Selection

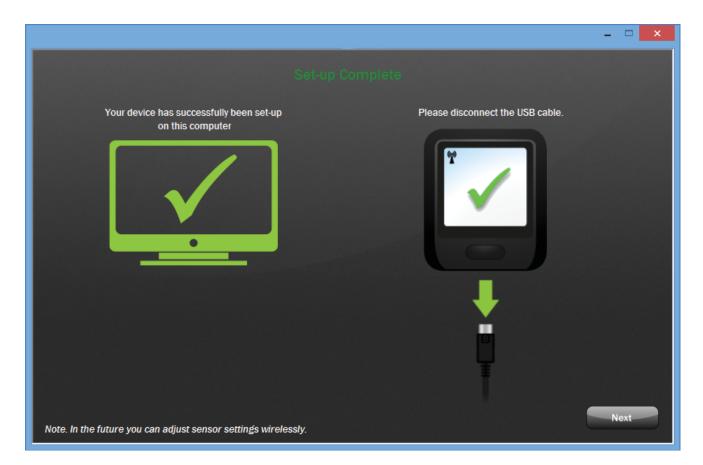


*Note: i) The probe number can be located on the label attached to the probe cable.* 

*ii) Selecting an incorrect probe type will cause measurement inaccuracies.* 



Once set-up has completed successfully you will see the following screen.



Click 'Next' to return to the starting screen.

### Go to Section 3.0 - Viewing Data Loggers on the PC

## Section 3.0 Viewing Data Loggers on the PC

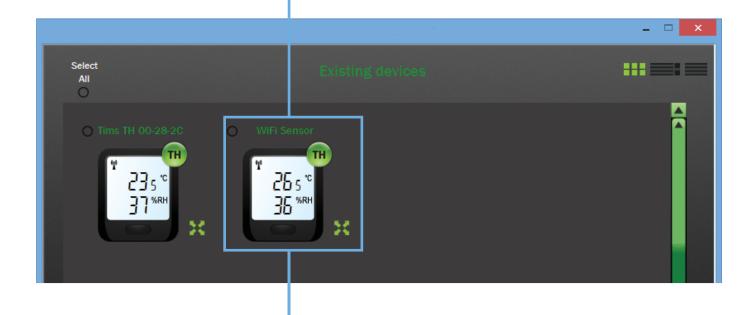
—1 Click on the second button to view the data loggers ('View Devices')	
_ 0	×
Set-Up Device	i
View Devices On This PC What's the difference?	
View Saved Data	

2 Notice the icons in the top right hand corner. Click on these to change the way the information is presented.

		- 🗆 🗙
Select All	Existing devices	
• Tims TH 00-28-20	O WiFi Sensor	

## Section 3.1 Data Logger Status & Properties

3 In some screens, clicking on a sensor icon will display an enlarged view.



Select All	of a second balating devices of a second	×
O DESERVICIÓN DE LA COMPACIACIÓN		
Change Device Settings	WiFi Sensor View Data Properties ()) Mute Alarm Right click device for other options	

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## Section 3.2

### Data Logger Sessions

### Data Storage System (Automatic)

The PC gathers data into sessions.

### 1) Sessions (in more detail)

The data is split into what are called 'sessions'.

New sessions are started by:



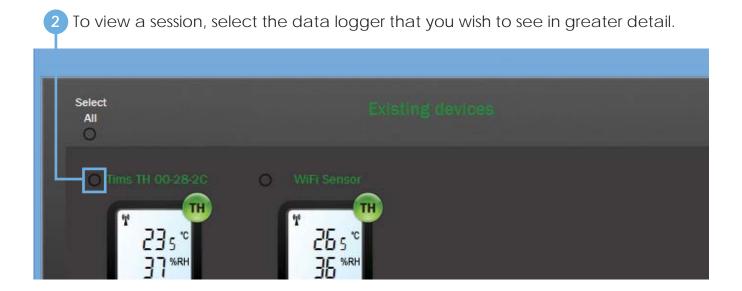
change in sample rate



change of data logger name

change in alarm settings

For example a new session will begin when you change the name of the data logger. You may wish to move the data logger from 'Storage One' to 'Chiller One'. The data splits into two separate sessions. The resulting graphs will now be titled correctly.



## Section 3.2

## Data Logger Sessions

3 Click on the 'View Data' icon located at the bottom of the screen and this will display the 'Graphing Sessions' screen.

		V
Change Device Settings	View Data <b>Properties</b> Right Click device for other options	Mute Alarm
Select the period to be displayed or JUN JUL AUG	1 the glauph(s): 2013 2014 0142:2013 SEP OCT NOV DEC JAN FEB MAR APR M 01412:2013	
Select the period to be displayed on the grap	h(s): 01-12-2013 3 OCT NOV DEC JAN FE 01-12-2013 Click on row to view graph 28/11/2013 11:01:27 - 28/11/2013 11:0	30 DAYS

List of recorded 'sessions'. Click on a row to view the graph.

5 If necessary, drag the date sliders to view sessions within a date range. Note: Arrows 1 and 2 allow you to scroll through the years. Arrows 3 and 4 allow you to select a time period of which to view sessions from.

## Section 3.3

1 To view a graph, select the session by clicking on the relevant row.



2 You can alter the information you wish to view by clicking on the tick boxes below the graph.

### Additional Saving Method (Manual)

If you wish to capture a particular event and save this information as a separate file you can do this by opening the graph and selecting 'Save'.

Note: The system will ask you for a file name. Give the file a unique name.

File View	🕈 Export 🛛 🔿 Mark Samples 🔿 Statistics 🛛 🏢 Data View	
	WiFi Sensor	
25.0		

### Saving and Zoom

Using zoom within a graph, you can zoom in on an event and save this as a separate file. Be aware the graphing program always optimises the view for you, data is not affected, only the way the data set is displayed.

2 In a graph screen press the 'Export' button and select the required format. Note: Bottom option will only work if you have Excel installed

		- • <b>×</b>
File View	ixport O Mark Samples O Statistics Data View	
JPEG PDF (	(graph)	
25.0	L (data and graph)	

3 Excel will automatically run and import data.

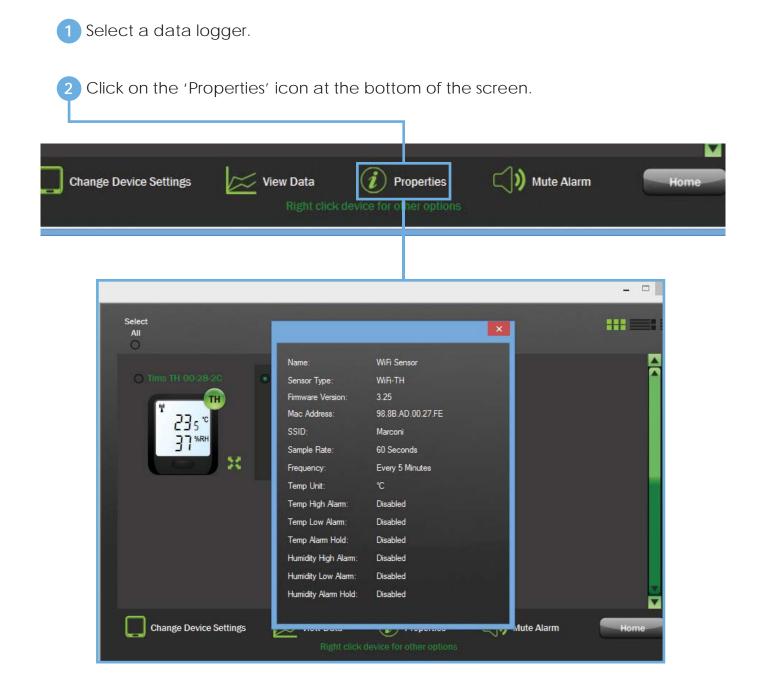
- (" La ("	•)•	Sheet1 - Micros	oft Excel	Chart Tools						-	-
Home	Insert Page Layou	t Formulas Da	ita Review Vi	iew Design	Layout Format						-
LA CON		• [11 • [A] A']			General			1 6 C	Σ AutoSom · A		
aste J Format Pr	wieter B Z U			A Merge & Cen	ter - 193 - 1/4 +	Conditional Formatting	Format Cell as Table * Styles *	Insert Delete Format	2 Clear - Filter	Find & Select *	
Clipboard	9	Font	Aligr	nment	Number		Ryfes	Cells	Editing		
	- (* J	=SERIES(Data1\$E\$	1.,Data/\$E\$2:\$E\$57	7,4)							
15	5/03/2023 00:00				3			24.15			
06	6/07/2009 00:00				140			- 24.1			

4 You can access the raw data through the second tab in the Excel spread sheets.

		Charts Data	27												-
Rea													(m	117% (	9 1
8	1.	an.e. :					Sheet1	- Microsoft	Excel						-
			Page Layout Form	A A a	Review View	Wrap Text		General		-	HIB 11	3- B		Σ AutoSum *	97 A
Pa	++	Copy	I U · ·		and the second se	Merge & Ce	nter *		· 24 -21	Conditional Formatting *	Format Cell as Table - Styles	Insert Delet	the second se	Clear *	Sort & Find & Filter * Select *
	Chi	Phadda	Font	15	Alignmer	ut.	6	tiumb	er 15		Shiel	Cell	1.	Ed	iting
		P40 🔻 🔄	f.e												
	A	B	C	D	E	F	G	н	1	. J	K L	M	N	0	PQ
1	31	Time	Temperature("C)												
2	1	09/05/2012 09:40													
3	2	09/05/2012 09:40													
4	3	09/05/2012 09:40													
5	4	09/05/2012 09:40													
6	5	09/05/2012 09:40						-							
7	6	09/05/2012 09:40						-							
8	7	09/05/2012 09:41													
	8	09/05/2012 09:41						1							
-	9	09/05/2012 09:41													
10	10														
10 11 12	10	09/05/2012 09:41													

. . . . . . . .

Device properties gives you a summary of all your data logger settings.



1 To adjust data logger settings over the WiFi, select the data logger that you wish to change.



2 Click on the 'Change Device Settings' icon located at the bottom of the screen and this will take you to the General Settings screen.

	Properties
Change Device	Settings View Data  View Data  View Context Properties  View Data  View Data
	<b>X</b>
GENERAL S	I) Name Device to give it a unique identity WiFi Sensor (max 12 char.) C C
	3) Select sample rate I Minute NOTE: This will set how often the device takes readings
	Select how often the device will communicate with the PC, each     communication reduces battery life

3 Follow steps as before in section 2.2.

Diligence WiFi Hints and Tips

## Section 4.1 Adjusting Data Logger Settings

Note: The updates will take effect only when the data logger next transmits.

For example In the above example the data logger will communicate every five minutes so it could take a minute for the data logger to update.

To save power a user may decide to transmit readings once every 30 minutes. In this case it will take at least 30 minutes for the data logger to update settings. If the senor settings need updating earlier, i.e. before the next regular transmission there is the ability to 'Force a transmission'.

### Force Transmission

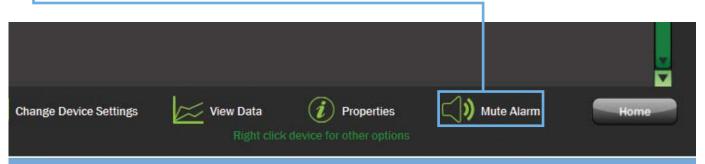
To force transmissions press the data logger button 3 times until the RSSI (Received Signal Strength Indication) screen is displayed. The data logger always transmits and receives when this screen is displayed.



				-		- □ ×
Select All						
O Device	Signal	Battery	Alarm	Temp	Humidity	Next Reading
O TH Tims TH 00-28-24			Disabled			
	88880					
O B WiFi Sensor 98.8B.AD.00.27.FE	l	נ	Disabled			
						▼ 44

1 To mute alarms generated by the PC software, click on the 'Mute Alarm' icon located at the bottom of the screen.

Note: This will mute all sounding alarms, there is no need to individually select them.



When the data logger reading has returned to an acceptable range, the alarm can be reset in one of two ways.

At the data logger, by briefly pressing the button.

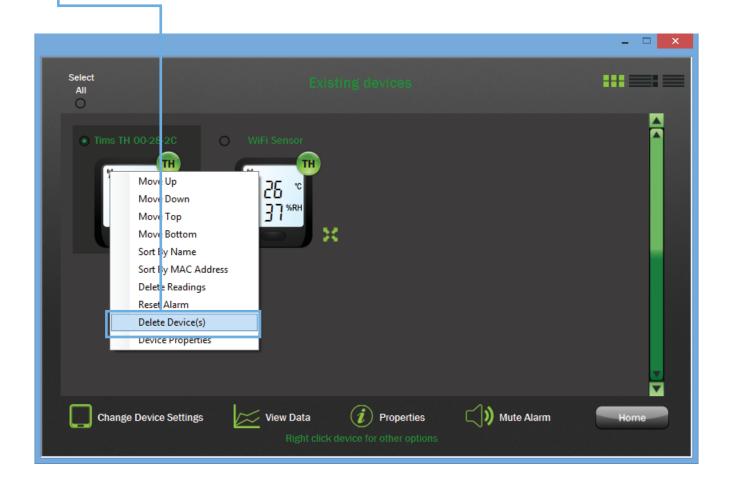
In the software, by selecting the 'Reset Alarm' option from the drop-down list. The alarm will be reset when the data logger next transmits.

47	Move Up		
	Move Down		
	Move Top		
	Move Bottom		
	Sort By Name		
	Sort By MAC Address		
	Delete Readings		
	Reset Alarm		
	Delete Device(s)		
	Device Properties	•	
		V	

You can delete data logger. This will delete the data logger from the PC program including all 'sessions'. ('sessions' are detailed more in section 3.4.2, Saving Data.) It will not delete any files you have specifically 'saved' from the graph.



2 From the options select 'Delete Device(s)'.



Note: If you have multiple data loggers selected, then all those selected will be deleted.

You will then be given the option to archive the logger data. This will save all the data logger sessions as .txt files locally to your PC which can be viewed at a later date.

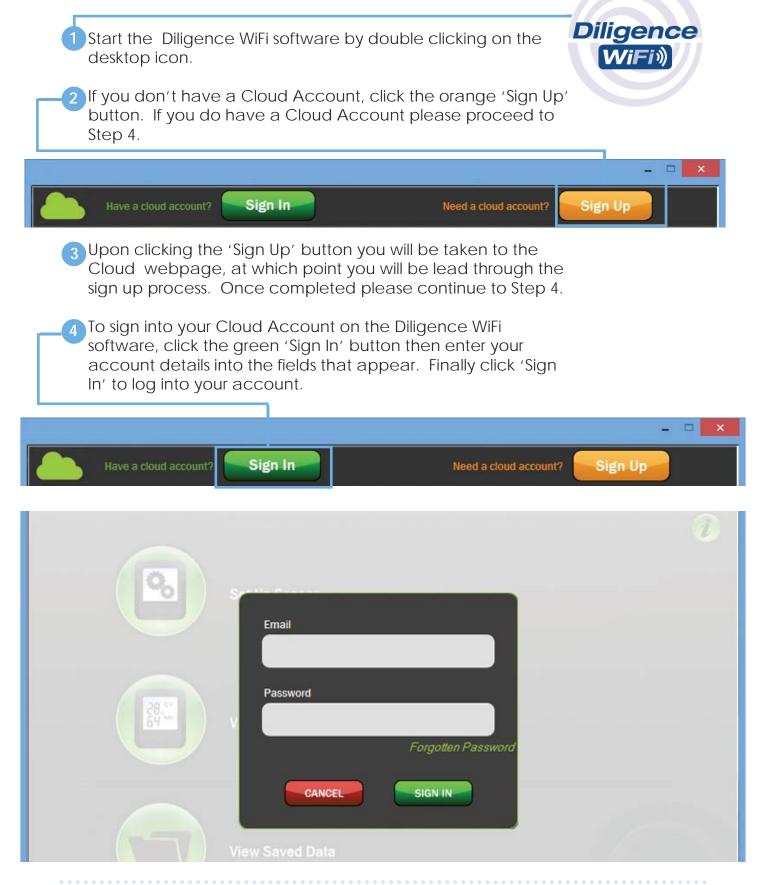
1 Click on the third button to view previously saved data.



This allows you to view any files you have saved from the graph. (see section 3.4 - Saving Data)

### This section is for Cloud users.

Section 6.0



Diligence WiFi Hints and Tips

## Section 7.0 Data Logger and Cloud Set-Up

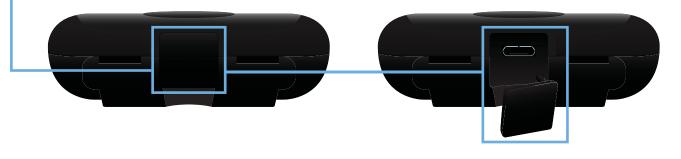
Start the Diligence WiFi software by double clicking the desktop icon.



2 Click 'Set-Up Device' button and choose 'On The Cloud'. (If a firmware upgrade message appears on the screen at this stage, refer to section 8.4 Firmware Updates.)

lave a cloud account?	Sign In	Need a cloud account?	gn Up
6	Set-Up Device	On This PC What's the difference?	1
	View Devices		
	View Saved Data		WIFI

3 Connect the data logger to your PC using the USB cable provided. The USB socket on the data logger is protected by a rubber bung. Remove this to gain access to the socket.



## Section 7.0 Data Logger and Cloud Set-Up

Note: If the data logger connects successfully you will see the following screen. If it fails, check the cable is fully connected to the data logger and PC. The software will automatically try again.



### 4 Scanning

When the message 'scanning' appears the data logger is listening for wireless networks that are currently in range. Once scanning has completed a list of available networks will be displayed. If the list is blank press the 'refresh connections' button on the top right.

		- • ×
((•))	Select a wireless network for your device:	
	WIFI_TEST8 Secured wireless network (WPA2) MAC: A0:21:B7:F0:BC:36	Refresh Connections
	WIFI_TEST5 Secured wireless network (WPA2) MAC: C0:3F:0E:D3:E2:CA	
	Marconi Secured wireless network (WPA2) MAC: C0:3F:0E:C7:EF:BA	
	Cisco-Enterprise Secured wireless network (Enterprise) MAC: 00:34:99:E2:4E-20	
	Device Mac Address: 98.88.AD.00.27.FE Device Type: WiFi-TH Device Firmware Version: 3.25	
	Enter Advanced Network Options Next Cancel	Next

## Section 7.0 Data Logger and Cloud Set-Up

5 Select the network you wish to connect to.

- 6 If you use a hidden network simply scroll to the bottom of the list and select 'Join Other Network' and then fill in your network details.
- 7 Enter the password. Press 'Connect'. After the router has successfully connected press 'Next'.

Note: If the data logger fails to connect to your wireless router the following screen will appear. Follow the on screen instructions and check the four points below.

		×
((•))	Select a wireless network for your device:	2
	WIFI_TESTB Secured wireless network (WPA to the COED3-E2-CA	Refresh Connections
	Marconi Secured wireless NOT CONNECTED	
	Pastor of the source of the selected network: 1) Check your password 2) Click on the software refresh button 3) Re-orientate the position of your sensor 4) Ensure your WiFi router is turned on and within range of the sensor	
	CANCEL CONNECT Device Mac Address: 98.8B.AD.00.27.FE Device ? Type: WiFi-TH Device Firmware Version: 3.25	
	Enter Advanced Network Options Next Cancel	Next

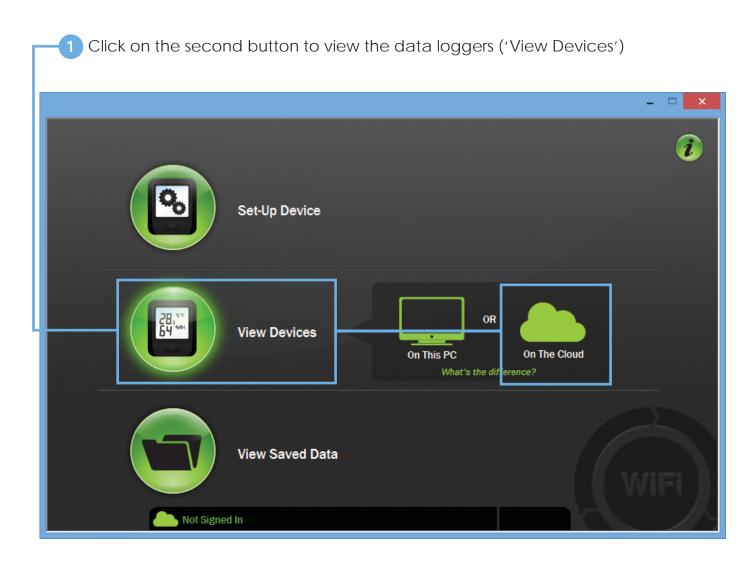
- 1) Check your password
- 2) Click on the software refresh button
- 3) Re-orientate the position of your data logger
- 4) Ensure your WiFi router is turned on and within range of the data logger

### **General Settings**

1 Enter a name for the data logger. It is possible to choose the Probe Type at this stage. Refer to section 7.3 for more information on other settings.

खा Diligence WiFi 1.29.86	
Give your device a name	
WiFi External No 3 (max 20 char.)	
Your device will be set-up on the Cloud using the following default settings:	
Temperature Scale: *C Sample Rate: 1 Minute Transmission Period: 5 Minutes	Alarms: Disabled
Probe Type: 02  Audit Check: Off Device Location: New Device	25
Please select the probe type you will be using NOTE: The probe type is identified by the numbered label on the plug end of the probe	
Note: In future you can adjust device settings from the Cloud	Back Next

## Section 7.2 Viewing Data Loggers on Cloud



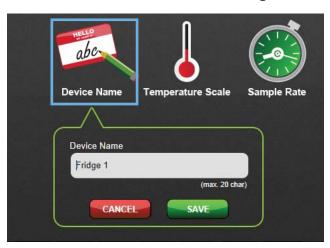
1 Click on 'New Devices' to select the data logger to be set-up. Then select 'Change Device Settings'.

		Upgrade Home Devices	Administration Account	Contact Support Sign Out
Last updated: 29/04/2014 11:33:27 (UTC +1hrs) C Refesh Now	Devic			
	Select All			
Comark	O Device A Name VA Sign:     Si		Reading 2 Status 🔺	
	96.88.AD.00.2D.EE ••			-
	Devices selected: 1 Devices in alarm: 0		▲ Page 1 of 1 ▼	
Archive / Delete	Change Device Settings View Data	Event Logs Reset Ala	rm i Properties	
		- <u></u>		

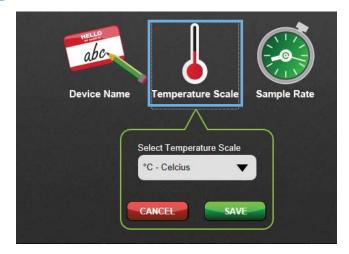
2 From the 'Change Device Settings' screen you can change the name of the data logger, the temperature scale, sample rate, transmission and alarms.

						Upgrade	Home	Devices	Administration	Account	Contact	Support	Sign Out
				Change	Device Sett	ings							
				TE	MPERATURE								
		Fridge 1			°C - Celcius								
		WiFi-T			Disabled								
	Sample Rate	1 Minute		High Alarm	Disabled								
		5 Minutes		Alarm Delay	0 Seconds								
	Audit Check	Disabled		Alarm Hold	Disabled								
		New Devices (UT	C +1hr)										
				CANCEL	APPL	Y							
			Click A	PPLY to schedu	le changes to be s		vice						
abe Device N		perature Scale	Sample		ransmission	Alarm Set	tings	Email Ale		Location			
Device	territe i errit	perature Scale	oampre	1100	Period	& Audit C		Email	Device	Looation			

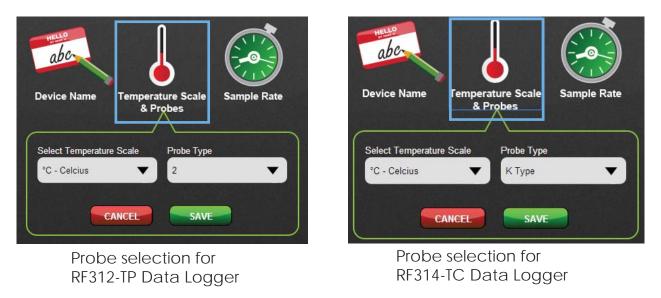
3 Click on 'Device Name' to change the name of a data logger.



4 Click on 'Temperature Scale' to select either Centigrade or Fahrenheit scale.

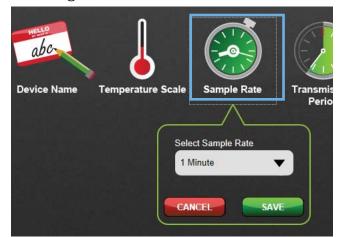


5 Click on 'Sample Rate' to select the timing between temperature or humidity readings.



Diligence WiFi Hints and Tips

6 Click on 'Sample Rate' to select the timing between temperature or humidity readings.



7 Click on 'Transmission period' to adjust the time period between data transmissions to and from the data logger and Diligence WiFi Cloud.



8 Click on 'Alarm Setting and Audit Check' to set low and high alarms, the alarm delay period and to enable an audit check on alarms.



Olick on 'Email Alerts' to select the parameters for an email alert.

Device Name	Temperature Scale	Transmission Period	Alarm Settin & Audit Che		ail Alerts	Device Location
Name	Email Address	Temperature Alarms	AC Power B	Device attery Low	Loss of Connection	Device Problem
Andrew Wallac	TALE AND MADE AND A					
	Manually add ema Name	il address to receive ale Email Address	erts			
				Ð		
	Clicking AP	CANCEL AP PLY will change email se	PLY ttings immediately			Help

- 10 The email address of the Account Holder will automatically be shown in the address list above for **Standard Account** users. **Professional Account** users can manually add additional email addresses so further contacts can receive email alerts.
- As changes are made to the settings of a data logger, they show in red on the 'Change Device Settings' screen. Once required changes have been made, click 'Apply' to action. The settings will transmit from the Cloud to the data logger at the next transmission period.

		Change I	Device Settings	
Device Name	Fridge 1	Temp Scale	°C - Celcius	-
Device Type	WiFi-T	Low Alarm	Disabled	-
Sample Rate	1 Minute	High Alarm	Disabled	-
Trans Period	5 Minutes	Alarm Delay	0 Seconds	-
Audit Check	Disabled	Alarm Hold	Disabled	_
Location				_
		CANCEL Click APPLY to schedule	e changes to be sent to t	the device

## Section 7.4 Viewing Cloud Data and Graphs

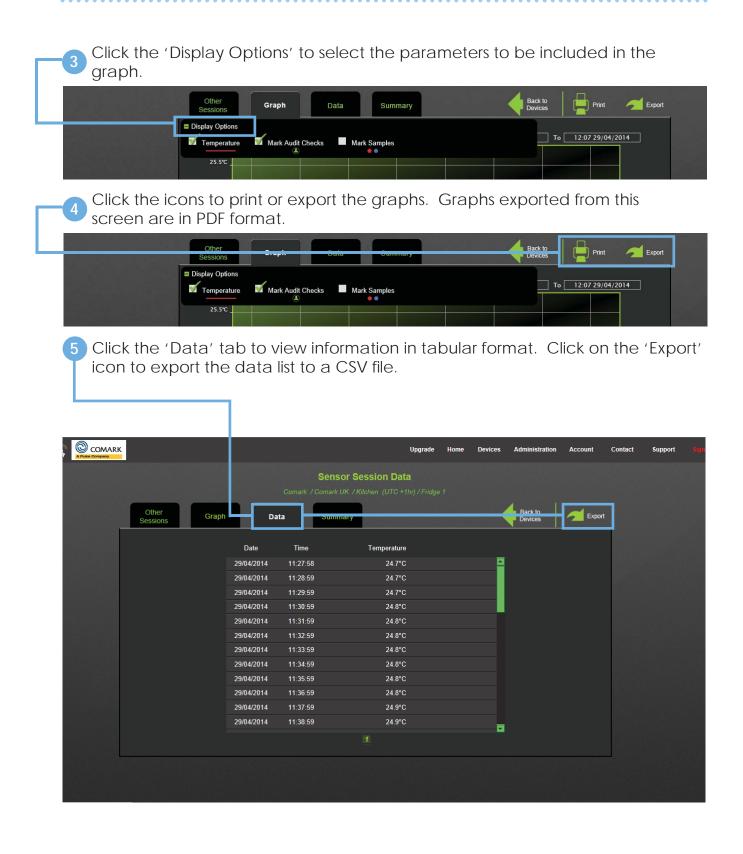
From the home screen, click the Devices Tab, select the data logger you wish to view, then click' View Data'.

					Upgrade	Home	Devices	Administration	Account	Contact	Support	Sign Out
Last updated: 29/04/2014 11:33 27 (UTC +1hrs) C Refre	sh Now			Devices Devices (UTC +								
🔗 Device Location	s Se	ect										
	s 🚺	II Device 🔺	Name 🔻 🔺	Signal I	Battery Ala	rm 🔺	Reading 1	Reading 2	Status 📥			
Comark			Fridge 1		Dis	abled	24 J °C					
		evices selected:						🔺 Page	1 of 1 🛛 🔻			
Archive	/ Delete Ch	ange Device Setti	ing: 📈 View	Data	Event Logs	N	Reset Alarr	n į Pr	operties			
							•					

The graph is shown on the screen. Use the zoom function to select the period visible in the graph. If the mouse is hovered over the graph, the temperature, date and time at that point are shown in an information box.



# Section 7.4 Viewing Cloud Data and Graphs



### Section 7.4 Viewing Cloud Data and Graphs

6 Click the 'Other Sessions' tab to view a summary of data sessions. From this screen a 'Session Audit' shows why new data sessions were started. Click on the 'Export' icon to export an Audit in PDF format.

						Upgr	ade Home	Devices	Administration	Account	Contact	Support	Sign
				Sensor S Comark UK / I									
	Other essions	Gruph D		Communy				Bac	k to ces	Export Device Audit PDF			
				Availat	le Sessi	ons							
Click	on a row to view ses	ssion information				Session Aud	•						
29	9 April 2014 - 29 Apri	1 2014 <b>1 day</b>											
	Session Start	Session End	Time Zone	Readings									
29						· · · ·	Changes Made	By: Alison Bı	ıtler				
29						🔔 -	emperature Lo	ow Alarm: 0 °0	C→ 10 °C				
						🔔 -	emperature Lo	ow Alarm: Ena	abled				
	Local march for the series			64.454.254644442	120125194	ABL MINISTROMAN		ol es soci nordere		PSALDARDHAMOSY			

Click the 'Summary' tab to view a summary of information for the data logger (device), measurement statistics and settings.

				Upgrade	Home D	evices Admi	nistration	Account	Contact	Support	Si
			Sensor Ses Comark (UTC +1								
Other Sessions	Graph	Data	Summary					Back to Devices			
	DEVICE										
	Device Name	Fridge 1									
	Device Type	WiFi-T		STATISTICS							
	MAC Address	98:8B:AD:00:2D:E	E	Tempera	ature						
	Firmware Version	2.3.12 / 2.3.12 / 2.	0.46 / 3.39	Minimum	22.9	°C					
	SSID	HUAWEI-E5776-5	E33	Maximum	27.1						
	Date Set up	29/04/2014 - 11:27	7:58	Average	24.6						
	No. Readings Taken	780		Standard	1.7	°C					
	No. Alarms Triggered	2									
	SETTINGS										
			Т	emperature							
	Sample Rate	1 Minute	Low Alarn	n 10°C							
	Transmission Period	5 Minutes	High Alarr	n 20°C							
	Audit Check	Disabled	Alarm Del	ay 1 Minute							
			Alarm Hol	d Enabled							

# Section 7.5

Event Logs

From the home screen, click the Devices Tab, select the data logger you wish to view, then click 'Event Logs'.

		Upgrade Home C	Devices Administrati	on Account	Contact	Support	51
Last updated: 29/04/2014 11:33:27 (UTC +1hrs) C Refresh Now	Devices NEW DEVICES (UTC	+1hr)					
Device Locations	Select All O Device ▲ Name ▼▲ Signal	Battery Alarm 🔺 Re	eacing 1 Reading 2	Status 🔺			
Comark			271 °C				
	T						
	8						
~	l evices selected: 1 Devices in alarm; 0			a 1 of 1 🔻			
Archive / Delete	Change Device Settings View Data	Event Logs	Reset Alarm i	Properties			

2 Once your data logger is set-up on your Cloud Account you will get this confirmation screen.

Date VA	Time	Time Zone	Device Name	Event 📥	
14/01/2014	16:30:27	UTC	RH Cloud Sensor 1A		
				Battery OK	
14/01/2014	16:30:27	UTC	RH Cloud Sensor 1A	AC Power Off	
14/01/2014	16:48:46	UTC	RH Cloud Sensor 1A	AC Power On	
28/03/2014	14:27:53	UTC	RH Cloud Sensor 1A	Battery OK	
28/03/2014	14:27:53	UTC	RH Cloud Sensor 1A	AC Power Off	
					Hidden events: '

# Section 7.5

Event Logs

3 Click on 'Filter Events' to show or hide events such as alarms, low battery, AC Power, loss of connection etc.



3 Click on 'Send This Log' to email the log data. Users can be selected from a drop down of registered system users.



Click on 'Clear Log' to remove the logged data from the list. Note: Once cleared from the list the log data cannot be recovered.



## Section 7.6

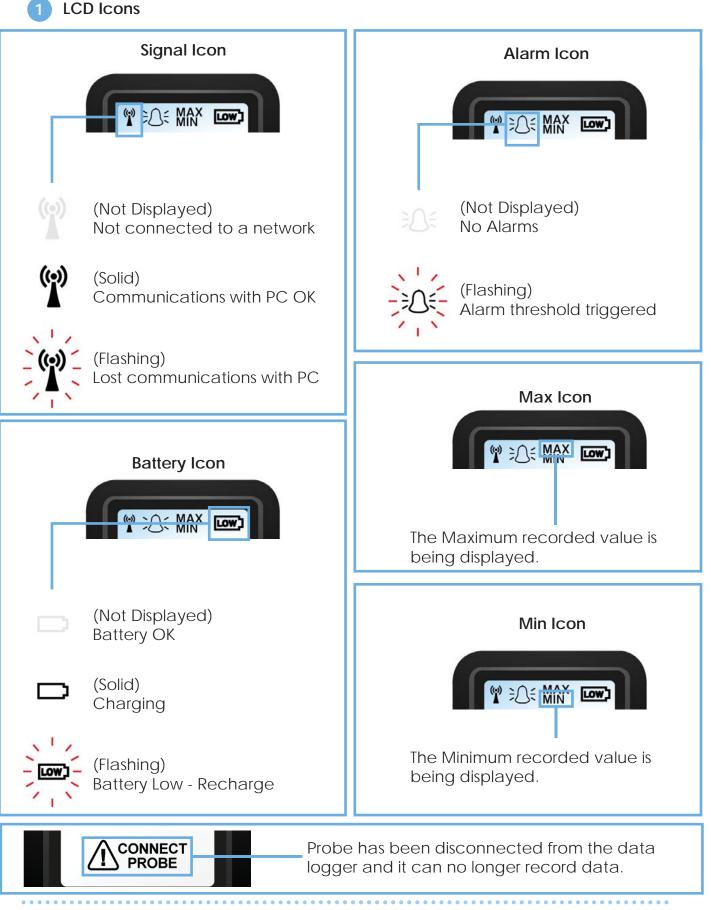
From the home screen, click the Devices Tab, select the data logger you wish to view, then click'Reset Alarm'.

		Upgrade Home Device	es Administration Account	Contact Support Sign Out
Lasi updated: 29/04/2014 13:01:29 (UTC +1hrs)	Devices Comark / Comark UK / Kitch	on (UTC +1br)		
Pevice Locations	Select			
NEW DEVICES	0 Device 🔺 Name 🗸 Signal	Battery Alarm 📥 Readi g	1 Reading 2 Status 🔺	
Comark	Fidge 1			
Kitchen				
	a			
	evices selected: 1 Devices in alarm: 1		A Page 1 of 1 V	
Archive / Delete	Change Device Settings View Data	Event Logs	Alarm <i>i</i> Properties	
https://demo.wifisensorcloud.com/dev Hints & Tips Cloud				

**Note:** Once 'Reset Alarm' is selected, the data logger will no longer show the alarm in the Devices List or locally on the data logger screen. It should be noted that without remedial action the conditions that triggered the alarm will remain.

• • • • • • • • •

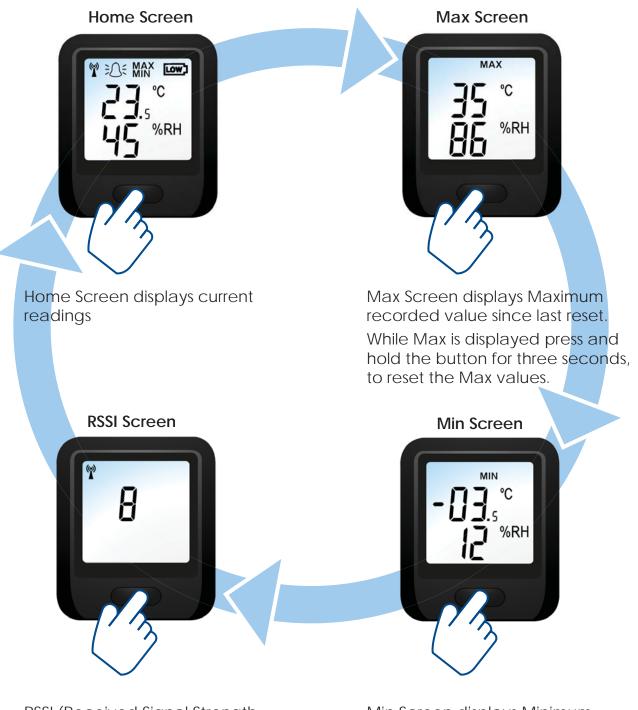
LCD Icons



Diligence WiFi Hints and Tips

#### Data Logger LCD Screens

Use the button on the data logger to cycle through the display screens.



RSSI (Received Signal Strength Indication) Screen displays current Signal Strength Min Screen displays Minimum recorded value since last reset.

While Min is displayed press and hold the button for three seconds, to reset the Min values. Battery Life & Charging

#### Optimising battery performance:

The data loggers can be powered in one of two ways:



Internal Battery Power

USB/Mains Power

#### **Battery Power**

These data loggers contain rechargeable batteries. It is good practice to optimise your system to avoid excessive recharging cycles.

To do this be aware of the following;

- 1 Transmitting uses a lot of battery power. By increasing the time between transmissions the batteries will last longer. For example; for a short battery life transmit every minute, for a medium battery life transmit every 10 minutes and for a long battery life transmit every 1 hour.
- 2 The data logger has an automatic sleep mode. The data logger detects when your PC is turned off or the software is closed, and enters a power-saving mode. In this mode the data logger wakes-up less frequently to test communications, but continues to gather data ensuring that no information is lost.
- When you turn your PC back on, it can take up to 30 minutes for the data logger to synchronize. This saves a lot of power. Under normal circumstances the data logger will synchronize within 15 minutes. If the data logger is mains powered, synchronization will complete within 5 minutes. Once communication is re-established the data logger returns to its normal transmission rate.

#### **USB/Mains Power**

If you have a critical process or do not wish to recharge data loggers, you can opt to have the USB charger plugged in continuously.



#### Reset / Restore Data Logger

#### 1 Reset Data Logger

### Warning: The data logger will retain all settings but will lose any data that has not been transferred to the PC.

The data logger can be reset by holding the button for 10 seconds. Release the button when LOW is flashing in the top right hand corner of the display.

#### 2 Restore Factory Settings

#### Warning: Only use restore when all other methods have failed.

A factory reset can also be performed, hold the button for 20 seconds **FArS** until appears on screen. Doing this will return the data logger to the factory state deleting all settings and clearing all previously recorded data.

#### Data Logger Firmware Updater

A Firmware Updater is installed with all versions of the Diligence WiFi Software and is accessible via the Start menu.

If you are running a Cloud version of Diligence WiFi and a firmware update is required the following information message appears on screen.



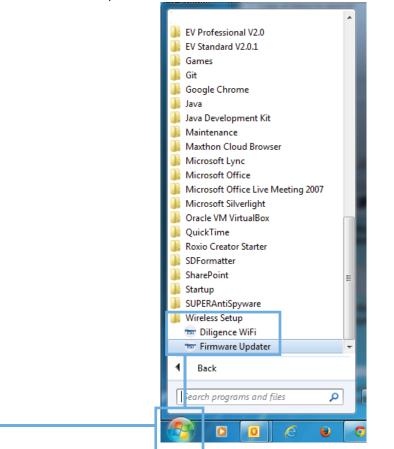
**Note**: Before starting the upgrade process, the latest Diligence WiFi firmware upgrade will need to be downloaded from the Comark website software page - www.comarkinstruments.com/software.

Any data logger already monitoring on a Diligence WiFi PC or Cloud system will need to be removed from the software before updating as the firmware update will reset and delete any data. You will be prompted to archive data when the logger is removed from the software so your temperature and humidity records are not lost. Any settings will be retained.

If there are multiple loggers to upgrade it saves time removing them all, then running the firmware upgrade.

#### **Upgrade Procedure**

On your PC, Click the 'Start' icon, then select 'All Programs'. Open the 'Wireless Setup' folder and click on the 'Firmware Updater' icon.



2 After archiving data and deleting existing data loggers from the system, connect the data logger to the PC via the USB cable provided. Click OK to proceed.



Diligence WiFi Hints and Tips

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3

The screen will show the software connecting with the data logger.



4 Then it will show when successfully connected.



5 After a few seconds, the firmware update page will open.

	Detected Device Pa	arameters
1	Device Type:	RF312-TP
	Mac Address:	98.8B.AD.00.2E.FE
	Firmware Version:	B3.39
	Hardware Version:	#VR:1:HR1.01
	System:	2.3.12 2.3.12 2.0.46 / 1.06
4	If you have used this	s device before, double check that you have done the following
		evice from your Diligence WiFi software, archiving any data you need to keep. igence WiFi software.
2		t firmware update file for your device from cinstruments.com/software.tpl
3	Select the firmware	file
4	UPLOAD	ate the firmware in your device If your device fails to update correctly, please disconnect it from the PC, ard press and hold the device button for 20 seconds. This will return the device to the factory state deleting all settings and clearing all previously recorded data. When complete, restart the Firmware Updater software and begin the update process again.

Browse to locate the firmware file for your data logger model on your PC. It can be downloaded from Comark Instruments Software page. (www.comarkinstruments.com/software). Click 'Upload' to begin and follow the on-screen instructions to run.

6 A successful update will be shown on screen. Click 'OK' to complete the process. The software will close automatically. It is now safe to remove the data logger from the PC and re-add the data logger to the software to continue to monitor temperature and/or humidity.

Section 9.0

### Enterprise Networks

		- 🗆 🛛
((•))	Select a wireless network for your device:	$\mathbf{c}$
	Marconi2 Secured wireless network (WPA2) MAC: 58:6D:8F:13:54:BF	Refresh Connections
	SensorNetEnterprise Secured wireless network (Enterprise) MAC: 00:23:69:C0:B0:37	
	Marconi3 Secured wireless network (WPA2) MAC: F8:D1:11:84:B0:63	
	Marconi Secured wireless network (WPA2) MAC: CD:3E-DE-C7-FE-RA	
	Username: user1 Authentication: PEAP	لعبال والم
	Password: ★★★★★★★★★ Password: ★★★★★★★★★ Password: ★★★★★★★★★ Password: PEAP TLS FAST	
	Device Mac Address: 98.8B.AD.00.00.73 Device Type: WiFi-TH Device Firmware Version: 3.32	
	Enter Advanced Network Options Next Cancel	Next

To configure an Enterprise network, enter your username and password. You will also need to select the Authentication type. If you do not know which one to use, please consult your IT administrator.