



# Glance User Guide

For School Beacons

Applied Information  
April 2015



# Glance User Guide

## For School Beacons

### Rev A

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# Chapter 1 – Glance Overview

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Glance is a web based Software as a Service (SaaS) platform that is designed to be adaptable and flexible. The SaaS concept allows users to subscribe to what they need, no central software package to buy, install or maintain! The user interface is web based, allowing access from any device with a browser and internet connectivity.

The software is structured to make operation easy and intuitive. The user interface is divided in 3 basic levels of monitoring/control:

## **Level 1 – Home Screen**

This screen shows all the account's devices, allowing easy navigation. The list is sorted by highest priority active alarms first. The map display shows the current location of each device with a custom 3D figurine situated on its current alarm status disk.

## **Level 2 – Device Overview**

This screen shows the device's Key Performance Indicators (KPIs) as defined. In this case it consists of all the intersection details as measured.

## **Level 3 – Device Detail**

The device detail page is used to show detailed information, raw field data and error logs of the device's parameters. It is primarily used for diagnostic purposes.

## **Menu Bar**

Use to navigate to other pages for various configuration options.

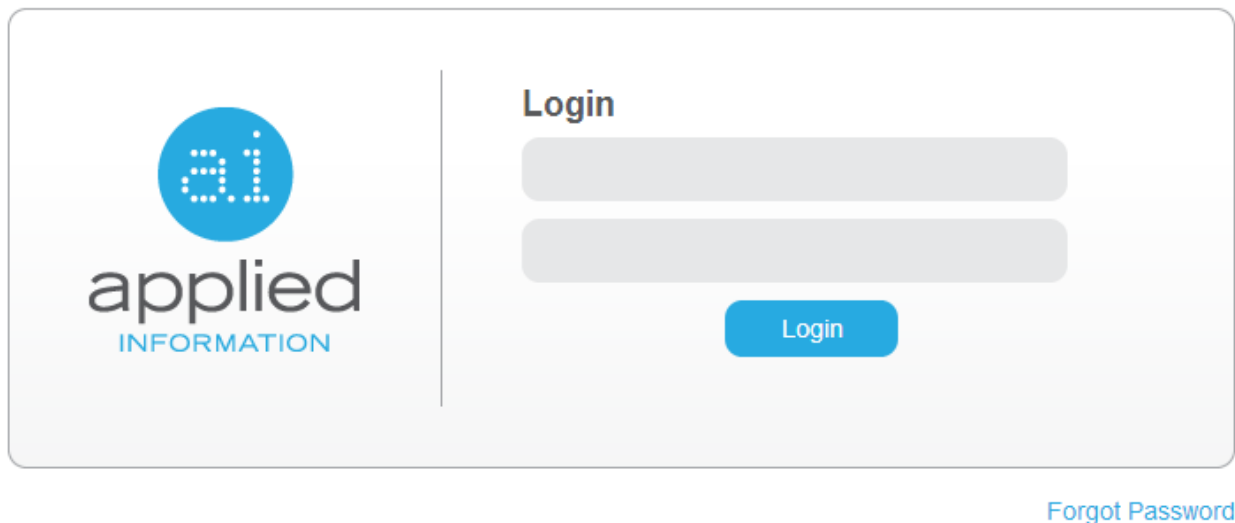
# Chapter 2 – Getting Started with Glance

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## Getting connected

- In order to get started you need a device with an Internet browser (Applied Information recommends using Google Chrome). The first step is to verify internet connectivity; this can be done by navigating to any news, social media or other public website and seeing that you have live activity.
- Go to the Glance log in screen at the link provided. It is recommended that you bookmark this link for future use.

## Logging in



applied  
INFORMATION

Login

Login

[Forgot Password](#)

*Figure 1*

- When presented with the Glance login screen (as shown in Figure 1), log in by completing your user name and password.
- When your credentials are incorrect, a message “Username/Password Combination is Incorrect” will appear. Try again using the correct credentials.
- In the event of a lost password, click on the “Forgot Password” link. A new screen will be shown where you can provide the email address associated with your account for resetting your password.

# Chapter 3 – Home Screen

After successfully logging in, the user will be directed to the Home screen as shown in Figure 2. This screen has a number of distinct areas, each showing important information, the sum of all providing a snapshot situational overview of the entire system.

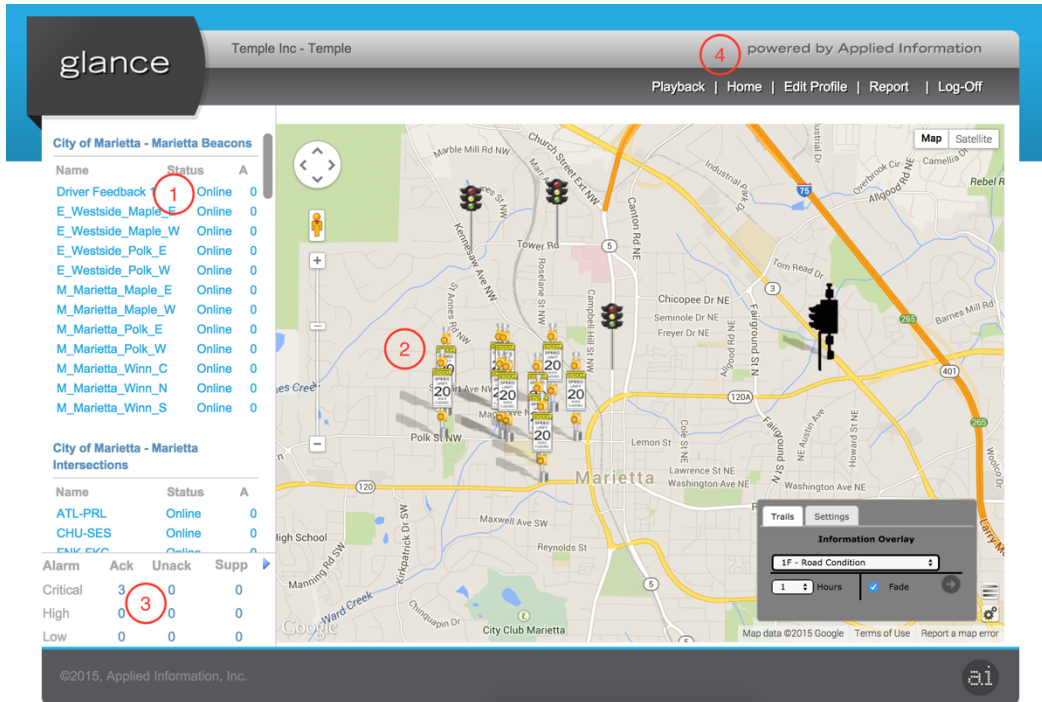


Figure 2

## Device List (1)

The device list includes all devices that are associated with the business unit, separated into groups based on device types, i.e. intersections, school zone flashers, driver feedback signs, etc. For each device in the list the user is able to see the device name, current primary status and the number of active alarms for that device. Click a device from the list to navigate to that specific device's "Device Overview" page. The order of the devices in the list is sorted to arrange devices from highest priority, newest alarms at the top of the list to devices with no alarms at the bottom. Clicking on a specific device will immediately bring up the Device Overview display, showing details of the device's status, including alarms.

## Map Display (2)

The map display shows the current location of each device with a custom 3D figurine and situated on its current alarm status disk. Stationary devices also have an information overlay showing important detail. Mobile devices use a color trail to indicate both where it is/has been and showing important detail. The map is fully navigable (Google Maps) with pan, zoom, etc. When clicking on a specific device, a pop-up box with a hyperlink to the Device Overview page is shown.

## Alarm Summary (3)

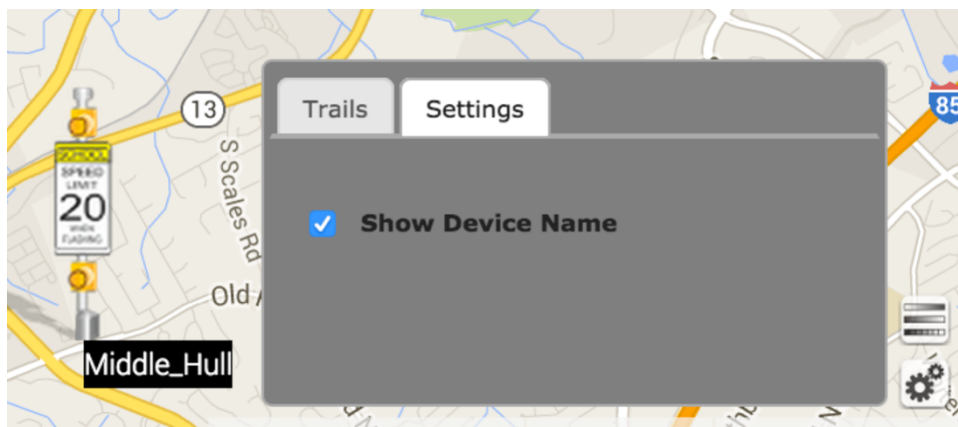
The alarm summary box can be found in the bottom left corner of the display. Here quantities of current alarms are shown and grouped into critical, high and low priority. Alarm details can be obtained by clicking on the arrow (in top right corner of alarm summary box).

## Menu Bar (4)

- Home – takes you back to the home screen from anywhere in the software.
- Edit Profile – only for users with administrator privileges
- Reports – Brings up a list of available reports that can be generated and downloaded in pdf format.
- Refresh – refreshes the server cache; only available for administrators
- Log-off – Logs the user out of Glance.

## Settings and Information Overlay

The settings box contains a toggle for device names, which may be switched on or off.



# Chapter 4 – Edit Profile

Users with administrative privileges will also have access to an Edit Profile option on their top right menu bar. Clicking this will bring the user to a settings page, where users can edit their own contact details, adjust their default settings in Glance, and more.

If a user has access, they may change their contact details in the form to the right. Users may also change their password by typing it twice.

To change the language for Glance, use the language drop-down menu.

The default main screen page has already been programmed with a standard Google Map location and zoom level. If after logging in, a user desires a different zoom level or location, they may change that setting by entering new values in the text box. To find out the latitude and longitude of a location, use the tool at maps.google.com. Find the desired spot, and right click on the map and ask Google “What’s here?”

In addition, default overlay settings are also adjusted on this screen, mimicking the controls from the main screen. This is only for Mobile devices

After making any changes, press the Save button to update preferences.

The screenshot shows a web form titled "Edit Profile" divided into three main sections: "Edit Information", "Google Map Settings", and "Overlay Information".

- Edit Information:** Contains text input fields for "First Name" (Lufft), "Last name" (Weather), "User name" (lufft), "Email address" (info@appinfoinc.com), "Password" (masked with dots), "Confirm password" (masked with dots), "User Employeeid" (1), and a "Language" dropdown menu set to "English - United States".
- Google Map Settings:** Contains input fields for "Zoom Level" (2), "Map Latitude" (38), and "Map Longitude" (-29). It also has a "Map Type" dropdown menu set to "ROADMAP".
- Overlay Information:** Contains a dropdown menu for "Overlay" set to "1 - Road Condition", a "Duration" dropdown menu set to "1", and a checkbox for "Fade" which is currently unchecked.

At the bottom of the form are two buttons: "Save" and "Cancel".

Figure 3



# Chapter 5 – Level 2, Device Overview

The Device Overview screen provides a great level of detail associated with the selected device and also gives a number of navigation options to additional information and control pages.

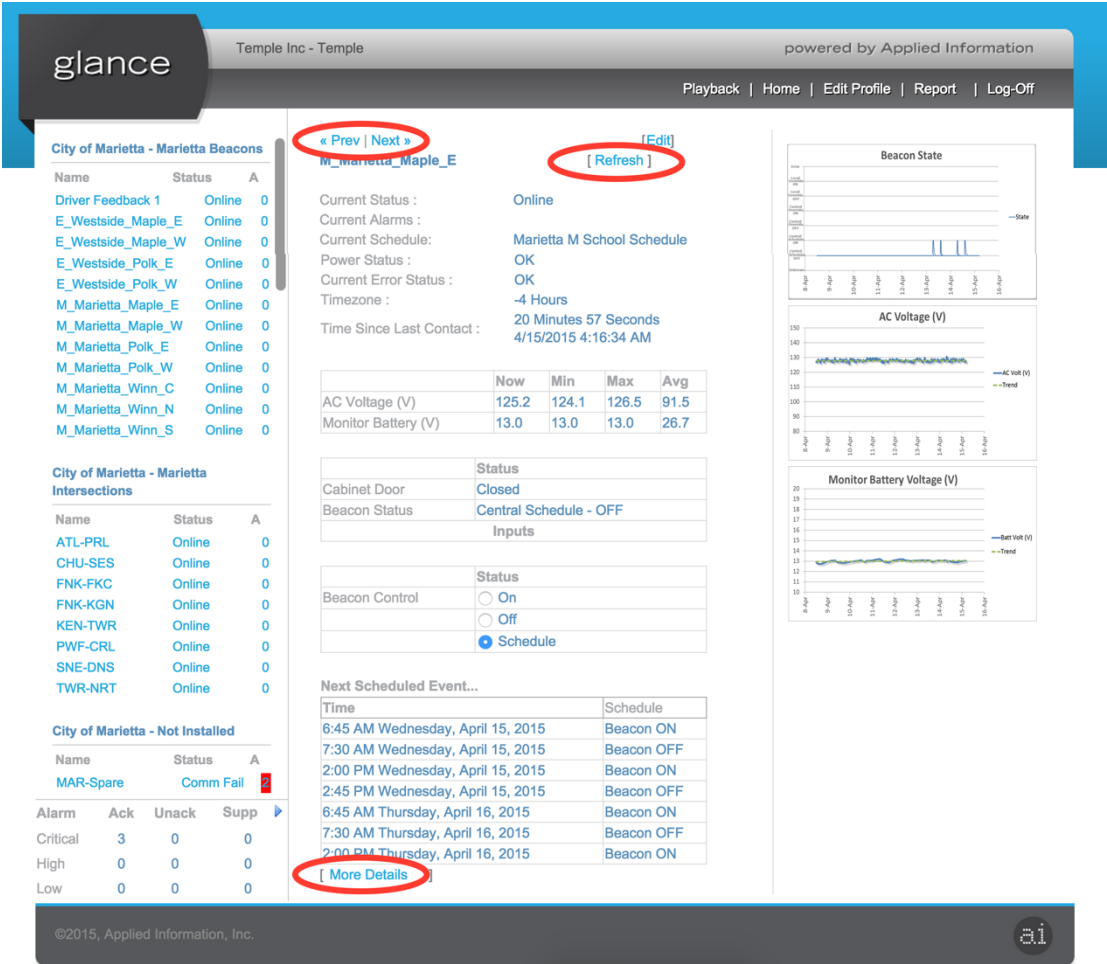


Figure 4

## Navigation

The user can get to additional detail and control pages by clicking on the associated links (see figure 3)

<< Previous | Next >>

Use these to navigate to the previous or next device on the device list.

## **Edit**

A link to modify the existing schedules, holidays and scenarios programmed to the device (See Chapter 5)

## **More Details**

A link to additional device details, primarily for troubleshooting purposes (See Chapter 6)

## **Refresh**

A link to force the device to send its latest information back to Glance. If a user selects this option the device will post its latest information back to Glance.

## **Information**

### **Current Status**

Indicates the device's current status, namely online, marginal or communications failure.

### **Current Alarms**

Indicates all currently active alarms

### **Current Schedule**

The name of the currently running schedule

### **Power Status**

The unit monitors the AC line for static units and the vehicle battery for mobile units and indicates status.

### **Current Error Status**

Indicates errors reported by the field device.

### **Time Zone**

The time zone in which the device is located and activities are logged.

### **Time Since Last Contact**

This is the time since the device last communicated successfully with Glance.

### **Additional Information**

Values of monitored inputs that is available displays in a grid showing values for current, minimum, maximum, average and 14 day average readings. These may include AC Voltage and Monitor Battery, or other values reported to Glance.

## Status

Additional Information may also display the value of the Cabinet Door, Beacon Status, or other values reported by Glance. If available, beacons may be manually controlled by choosing the radio buttons on, off, or schedule.

## Next Scheduled Event...

The currently running schedule, if available and selected, will display the next set of changes set for the beacons.

## Trending Graphs

The right side of the screen shows a graphical representation of selected parameters over a time period. Click on the graphs to display a bigger image. These graphs may include Beacon State, AC Voltage, and Monitor Battery Voltage.

# Chapter 6 – Schedules and Scenarios

Editing and controlling schedules and scenarios is accessed by clicking the “edit” link on the “Device Overview” screen (see Chapter 4). This action will take you on the first tab of the edit screen, “Scenarios”, as shown in figure 4.

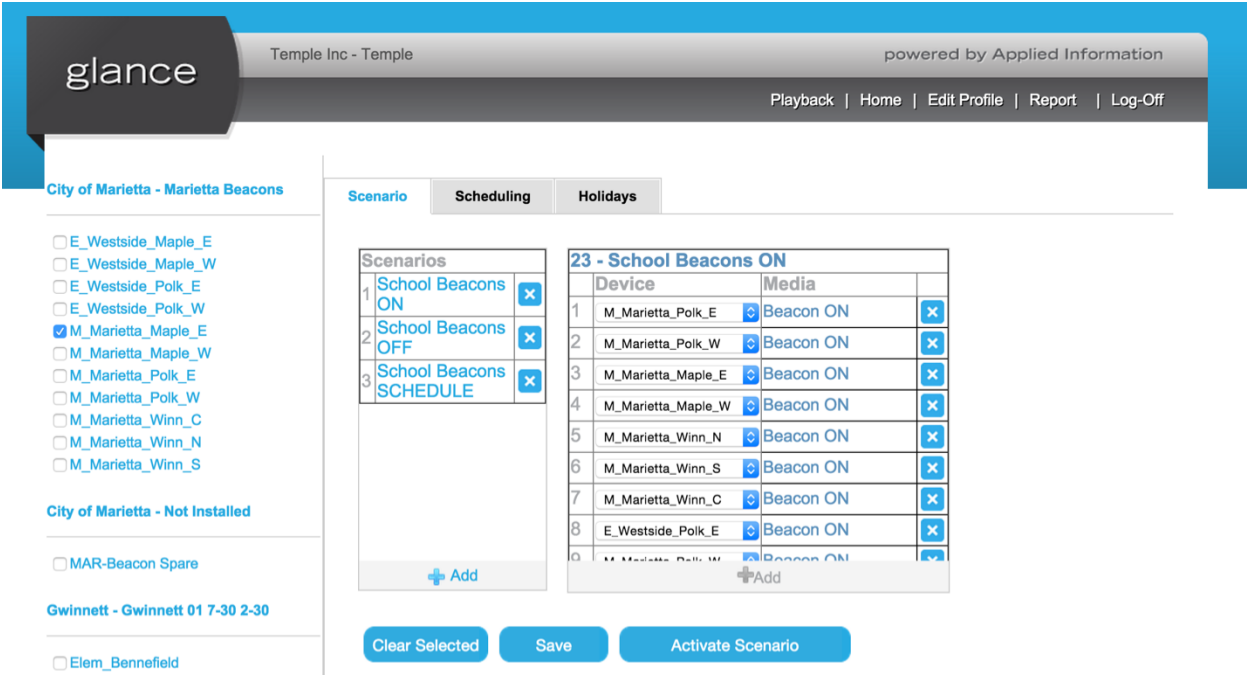


Figure 4

## Scenarios

A scenario is the mechanism used in Glance to control multiple devices at the same time. This feature allows you to set up a group of beacons to be turned on/off with one click of the button. Scenarios can be created by pressing the Add button on the middle panel. The right most panel will display the devices currently controlled by that scenario. Press Add in the second panel to add new devices to the scenario. Based on which scenario and selection, Glance will either toggle beacons on, off, or revert back to schedules after the Activate Scenario button is pressed. To rename a scenario double click the white space next to the name, not the name itself, will rename the scenario.

## Scheduling

Scheduling is used to control when beacons are to be turned on or off. Schedules are the default and can be overridden by “Scenarios” and Level 2 radio controls.

The screenshot shows the 'glance' web interface for 'Temple Inc - Temple'. The main content area is titled 'City of Marietta - Marietta Beacons' and has three tabs: 'Scenario', 'Scheduling', and 'Holidays'. The 'Scheduling' tab is active.

On the left, there are two sections of device lists:

- City of Marietta - Marietta Beacons:** A list of 12 items with checkboxes. The first item, 'M\_Marietta\_Maple\_E', is checked.
- City of Marietta - Not Installed:** A list of 1 item with a checkbox: 'MAR-Beacon Spare'.

The central panel, 'List Of Schedules', contains a table with 12 rows. The first row is '1 Marietta M School Schedule'. Below it are 'Winn Street Schedule', 'Westside E School Schedule', 'Test Early Release', and 'Schedule 5' through 'Schedule 12'.

The right panel, '1 - Marietta M School Schedule', shows a detailed table:

	M	D	Days	Time	Command
1	ALL	ALL	MTWTF	06:45:00	Beacon ON
2	ALL	ALL	MTWTF	07:30:00	Beacon OFF
3	ALL	ALL	MTWTF	14:00:00	Beacon ON
4	ALL	ALL	MTWTF	14:45:00	Beacon OFF
5	ALL	ALL	S....S	01:00:00	Beacon OFF
6	...	...	.....	00:00:00	
7	...	...	.....	00:00:00	
8	...	...	.....	00:00:00	
9	...	...	.....	00:00:00	
10	...	...	.....	00:00:00	
11	...	...	.....	00:00:00	
12	...	...	.....	00:00:00	

At the bottom of the central panel are three buttons: 'Clear Selected', 'Save', and 'Publish'.

Figure 5

The left most panel provides a list of all devices available for scheduling, grouped by business unit. To select multiple beacons, the operator can select multiple check boxes on the left hand column. Operators can select a whole group of beacons by selecting the main business above the beacons. Clicking the business group will select or deselect the beacons.

The list of schedules is then presented in the middle panel. Press on the blue link to view that particular schedule. The panel on the far right will then display which days, times and commands are desired for the schedule. After changes are made, you may choose to Save the schedule, which will save your changes but not run, or Publish, which will both save changes and run the schedule.

To modify the days, times, and commands, double click on a line number in the right panel. This will open the window below, allowing you to make the appropriate selections using drop downs, scroll controls, and checkboxes. Similarly, double clicking the line in the list of schedules, not the name itself, will rename the schedule.

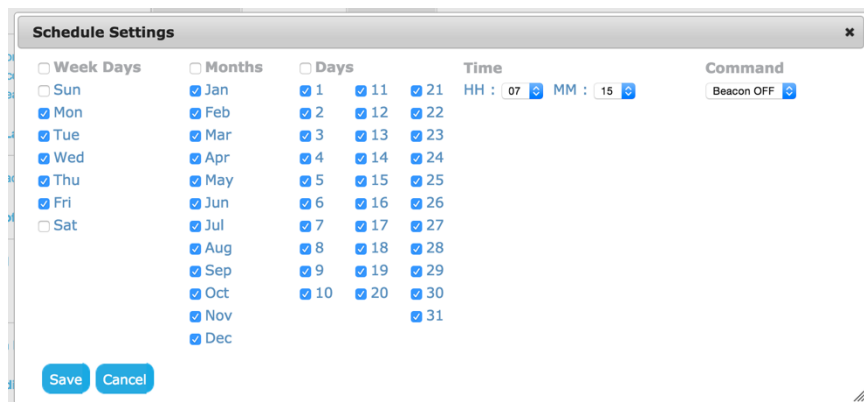


Figure 6

## Holidays and Exceptions

Holidays and exception days may be preprogrammed to automatically turn beacons off during holidays or change to a different schedule for exception days. This would then be ignoring the regular schedules and scenarios. The currently selected beacon will display in the drop down. Days may be added with the Add button at the bottom of the panel. Enter a name, start day, and end day, select command (beacons off, beacons on or selected schedule) and choose publish, and beacons will run the selected command on those days.

To modify the holidays, click once on the date, or double click the name of the holiday to change names.

City of Sugarland - E\_Austin Parkway

City of Sugarland - E\_Barrington Place

City of Sugarland - E\_Colony Meadow

City of Sugarland - E\_Commonwealth

City of Sugarland - E\_Dullus

Scenario Scheduling **Holidays & Exceptions**

E\_Dulles\_N

	Name	Start (12.00 AM)	End (11.59 PM)	Command
1	Holiday	September 07, 2015	September 07, 2015	Beacon OFF
2	Holiday	September 25, 2015	September 25, 2015	Beacon OFF
3	Holiday	October 12, 2015	October 12, 2015	Beacon OFF
4	Thanksgiving	November 23, 2015	November 27, 2015	Beacon OFF
5	Christmas	December 21, 2015	January 04, 2016	Beacon OFF
6	Holiday	January 18, 2016	January 18, 2016	Beacon OFF
7	Holiday	February 15, 2016	February 15, 2016	Beacon OFF
8	Spring break	March 14, 2016	March 18, 2016	Beacon OFF
9	Holiday	March 25, 2016	March 25, 2016	Beacon OFF
10	Holiday	April 15, 2016	April 15, 2016	Beacon OFF
11	Holiday	May 30, 2016	May 30, 2016	Beacon OFF
12	Summer Break	June 03, 2016	August 23, 2016	Beacon OFF

+Add

Figure 7

## Program Delay

The program delay feature is used to delay/advance or cancel school beacon schedule times. This is primarily used for Snow days where operators want to delay or cancel the school start times. The information is presented as another tab for the scheduling control of the beacons. All the same features of selecting multiple beacons exist in this tab. The operator first selects the day either today, tomorrow or a custom date via a radio button. The operator can then select if they would like to delay the beacons for just the morning or just the afternoon or both by selecting the check box's. Selecting the checkboxes automatically changes the hours that the schedule will be delayed. However, for custom configurations the user can manually change the hours between by selecting the start and end times. The operator can then select to delay or advance the time for a period or cancel the beacons altogether.

Once the operator has selected their choices they must click add new. This will create a program delay schedule. The operator can then select the beacons on the left hand column to send the program delay. By selecting the business on the top will select all beacons under that business. This makes it easy to select all the beacons with one click.

Once the program delay has run through its schedule the beacons will return to normal operation.

The Colony

- E\_Prestwick\_Bankside\_W
- E\_Prestwick\_Lebanon\_N
- E\_Prestwick\_Lebanon\_S
- E\_Prestwick\_Oxford\_S

Scenario | Scheduling | Holidays & Exceptions | **Program Delay**

E\_Prestwick\_Lebanon\_N

Today  Morning between the hours of  
 Tomorrow  Afternoon 00 : 00 and 11 : 59  
 Date: [March 26, 2016](#)

Delay for 02 hours 00 minutes Add New

	Date	Time (between the hours of)	Command
1	March 24, 2016	00 : 00 and 11 : 59	Delay for 02 h 00 mm <span>X</span>

Publish Program Delay

Figure 8

# Chapter 7 – Level 3, Device Unit Detail

The Device Detail screen provides diagnostics details. A filter is provided to select the device for which details are required as well as a date/time window.

- First select a “from” date/time by clicking on the link and editing the pop up window
- Then select a “to” date/time by clicking on the link and editing the pop up window (the default is always the current date/time)
- Activate by clicking on “Filter”

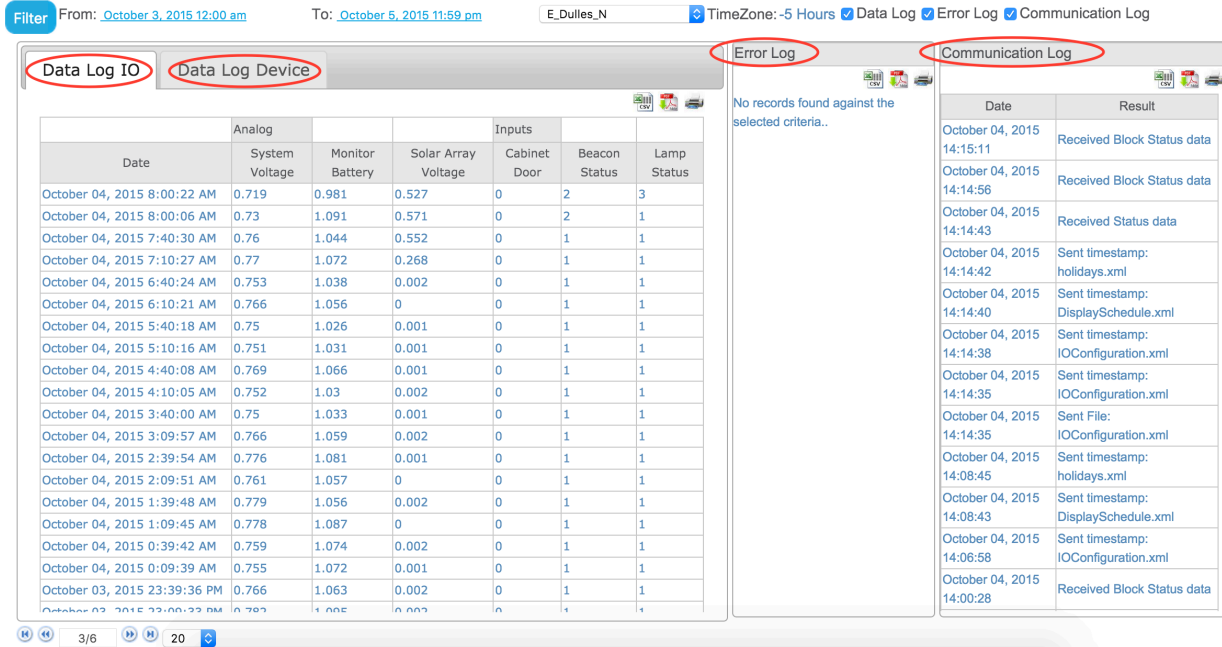


Figure 9

## Data Log IO

This data log contains all raw data values for the Inputs and Outputs (that forms the basis for the Device Overview data) that the field device has successfully posted to Glance.

The System Voltage or AC voltage represents the raw values collected from the field device. These values collected are then scaled to showcase the actual voltage in the Level 2 information. The same occurs for the monitor battery and the solar array voltage. If you are wanting to find out the scale that these values are multiplied for to give the actual voltage please contact Applied Information for support.

The cabinet door status shows a 0 if the door is closed and a 1 if the door is open.



Beacon Status has the below meaning:

Beacon State	Values
Unknown	0
Scheduled Off	1
Scheduled On	2
Central Override Off	3
Central Override On	4
Local Override Off	5
Local Override On	6
Error	7

Lamp Status has the following meanings:

Lamp Status	Values
Unknown	0
Good/OK	1
1 Lamp Failed	2
2 Lamps Failed	3

## Data Log Device

This data log contains data other than IO, e.g. GPS latitude and longitude, elevation, time of day, cell signal strength, software version number and other important field device specific parameters.

## Error Log

Indicates various errors that have been reported by the field device.

## Communication Log

Provides details of all communications between Glance and the selected field device. Examples of communications events include

- Sent configuration data
- Received status data
- Received block status data. Applied Information uses the concept of “intelligent blocks” as a more data usage friendly communications method to limit cellular data usage.

## Data Export

A set of icons (Excel, print and pdf) can be found in the top right hand corner of each table. Clicking on these allows the user to either print or export the data to a pdf document or Excel file for further data sorting and manipulation.

# Chapter 8 – Report Viewer

The Report Viewer is a robust set of standard and custom reports based on individual business requirements. By navigating to Reports in the top right menu bar, users can access reports based on individual access level and grouped by business.

Navigate the groups of reports using the tree on the left, and click to select a group. Each report can be either downloaded and / or opened, depending on the report type. Excel, raw data, and tabulated reports will be downloaded and opened in the correct program.

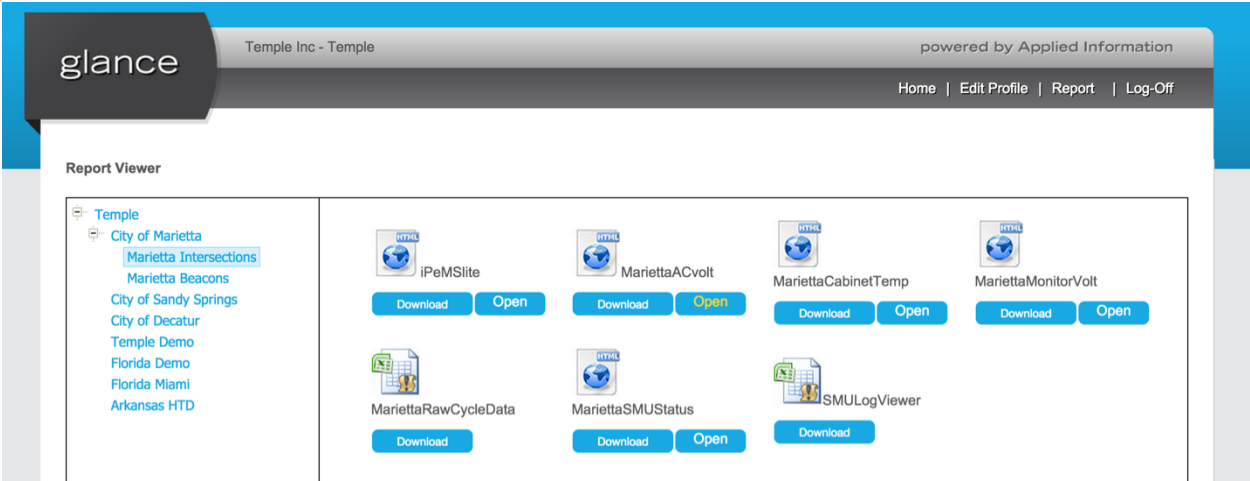


Figure 10

## Individual Reports

Click open to view a report in your browser, which may include a single location to view all devices and voltage history, cabinet temperatures, and more.

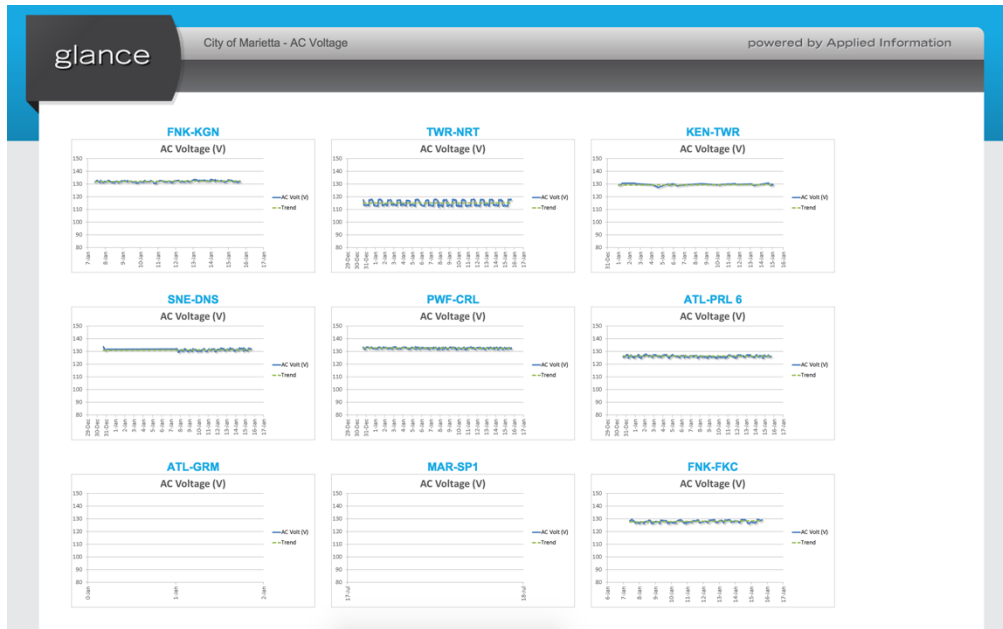


Figure 11

# Chapter 9 – Field Controller Hardware

The AI-500 series provides a low cost way to monitor traffic signal intersections. The AI-500-070 is specially designed for School Beacon Flasher Timer Switch application. The field controller is designed for extreme temperature applications, has low power requirements and comes in a variety of configurations supporting all common communication methods. All units come with multiple digital inputs and outputs as well as analog inputs. Ethernet and cellular communications is supported and the unit has an integrated GPS. The units come preloaded with the Glance Player App which provides connectivity to Glance.

## Hardware Specification

AI-500-070	
<b>Connectivity</b>	
Cell Modem *	Yes
Ethernet Port (10/100Base-T)	Yes
RS-232 Port	Optional **
<b>Industrial I/O</b>	
Analog Inputs	AC Power, Solar Batteries & Temperature
Digital Inputs	Beacon Status & Door Open Switch
Digital Outputs	2 X Beacon Circuits
<b>Miscellaneous</b>	
Operating Systems	µC/OS-II
GPS	Yes
Operating Temperature	-40°C to 80°C
Humidity	5-95% non-condensing
Dimensions	8" x 5" x 2"
Input Voltage	16-30v DC, 120V AC
Real Time Clock	Yes
Flash Disk	Yes
Battery Backed Memory	Yes
<b>Also suitable for...</b>	
Solar/battery powered	Yes
Lamp Monitoring	Yes
Scheduling	Yes



Figure 12



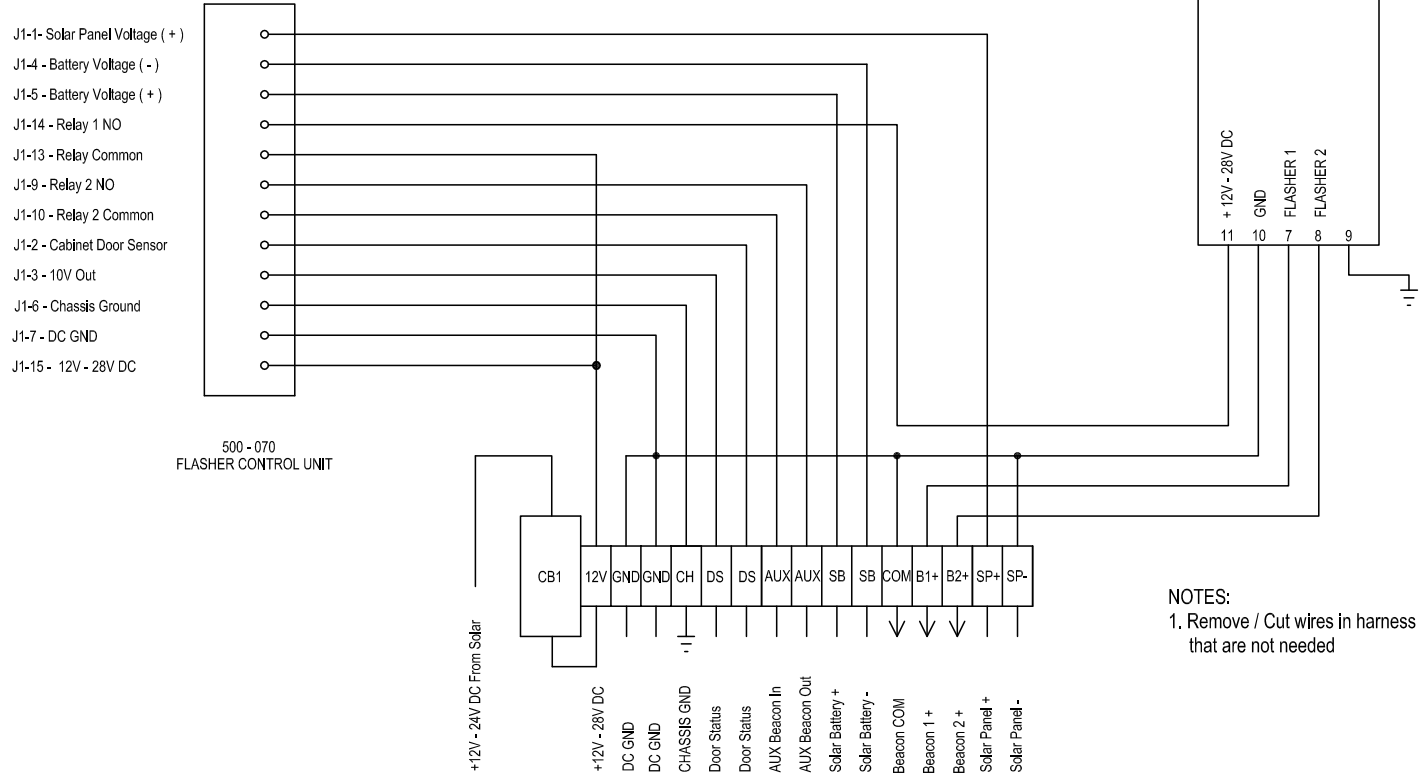
Figure 13

## Controller Input and Output Allocation and Functions.

Please see the device specific I/O allocation table for detailed input and output allocation tables.

500-070 Standard I/O Allocation and Description:

#	Type	Function	Pin	Color	Description
	Analog	Solar Panel Voltage	J1-1	YEL	Solar Panel – (connect to total solar array)
	Input	Cabinet Door Alarm (10VDC)	J1-2	YEL	Cab Door Alarm (Install separate door switches NO when doors are closed) (Common contact to connect to J3-4 or J3-5, +10VDC source)
	Output	10VDC out	J1-3	YEL	Whetting voltage for door status
	Analog	Solar Battery Voltage (-)	J1-4	BLK	Battery - (connect to actual batteries)(If solar powered system)
	Analog	Solar Battery Voltage (+)	J1-5	RED	Battery + (connect to actual batteries)(If solar powered system)
	Chassis	Chassis Ground	J1-6	GRN	Connect to chassis ground
	Power	Logic Ground (DC)	J1-7	BLK	Logic ground (connect to GND of DC power source)
	Power	Power (+120VAC)	J1-8	BLU	Primary power input for AC option (L)
	Output	Beacon 2 Power OUT	J1-9	PUR	Power supply for Beacon 2 (RLY2 NO)
	Output	Beacon 2 Power IN	J1-10	BRN	Power supply for Beacon 2 (RLY2 Common)
		Reserved	J1-11	-	
		Reserved	J1-12	-	
	Output	Beacon 2 Power IN	J1-13	BRN	Power supply for Beacon 2 (RLY2 Common)
	Output	Beacon 2 Power OUT	J1-14	PUR	Power supply for Beacon 2 (RLY2 NO)
	Power	Power (+12 to 28V DC)	J1-15	RED	Primary power input for Solar/DC option
	Power	AC Neutral	J1-16	WHT	Primary power input for AC option (N)



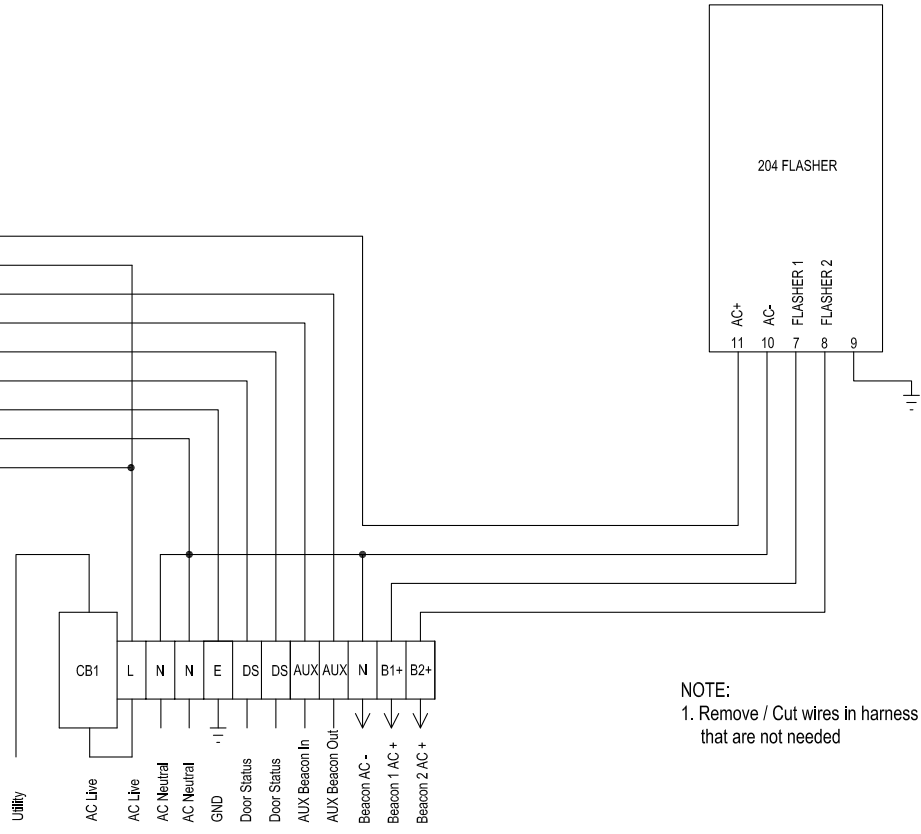
Drawn By : S. Markusoff	Date : 20Aug15
Approved By : JC Deetlefs	Date : 20Aug15
Revision : C	Size : A3
Scale : N.T.S.	
Drawing Number : AI500-070-01	

Drawing Title : FCU 500-070 Flasher Control Unit Typical Wiring Diagram (12V-28V DC)
Client : Manufactured for & distributed by Applied Information Inc



- J1-14 - Relay 1 NO
- J1-13 - Relay 1 Common
- J1-9 - Relay 2 NO
- J1-10 - Relay 2 Common
- J1-2 - Cabinet Door Sensor
- J1-3 - 10v Out
- J1-6 - Chassis Ground
- J1-16 - 120V AC (Neutral)
- J1-8 - 120V AC (Live)

500-070  
FLASHER CONTROL UNIT

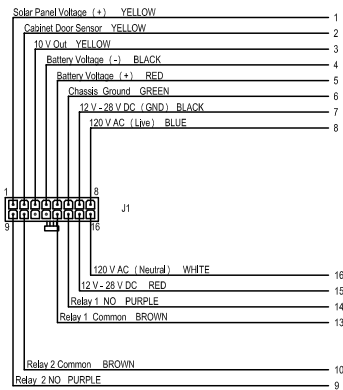


NOTE:  
1. Remove / Cut wires in harness that are not needed

Drawn By : S. Markusoff	Date : 19Mar15	Drawing Title : FCU 500-070 Flasher Control Unit Wiring Diagram (120VAC)
Approved By : JC Deetlefs	Date : 19Mar15	
Revision : B	Size : A3	Scale : N.T.S.
Drawing Number : AI500-070-02	Client : APPLIED INFORMATION INC.	







DESCRIPTION	PIN #	COLOR	AWG	LENGHT	FUNCTION
J1 MOLEX Header Manufacturers PN 39-01-2160	Pin 1	YELLOW	18 AWG	24" (600mm)	Solar Panel Voltage (+)
	Pin 2	YELLOW	18 AWG	24" (600mm)	Cabinet Door Sensor
	Pin 3	YELLOW	18 AWG	24" (600mm)	10V Out
	Pin 4	BLACK	18 AWG	24" (600mm)	Battery Voltage (-)
	Pin 5	RED	18 AWG	24" (600mm)	Battery Voltage (+)
	Pin 6	GREEN	18 AWG	24" (600mm)	Chassis Ground
	Pin 7	BLACK	18 AWG	24" (600mm)	24V / 28V DC (GND)
	Pin 8	BLUE	18 AWG	24" (600mm)	120V AC (Line)
	Pin 9	PURPLE	18 AWG	24" (600mm)	Relay 2 NO
	Pin 10	BROWN	18 AWG	24" (600mm)	Relay 2 Common
	Pin 11	-	-	-	Relay 2 NC
	Pin 12	-	-	-	Relay 1 NC
	Pin 13	BROWN	18 AWG	24" (600mm)	Relay 1 Common
	Pin 14	PURPLE	18 AWG	24" (600mm)	Relay 1 NO
	Pin 15	RED	18 AWG	24" (600mm)	12V / 28V DC
	Pin 16	WHITE	18 AWG	24" (600mm)	120V AC (Neutral)

Drawn By: **S. Markusoff**    Date: **12Aug15**  
 Approved By: **JC. Deetlefs**    Date: **12Aug15**  
 Revision: **E**    Size: **A3**    Scale: **N.T.S.**  
 Drawing Number: **A1500-070-03**

Drawing Title: **500-070 FCU Schoolzone Beacon External Harness Diagram**  
 Client: **APPLIED INFORMATION INC.**



# Chapter 10 – Setting up the Field Controller

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The timer switch controller uses a web based local user interface for configuration purposes.

## How to access the configuration webpage

1. Connect an Ethernet cable from the Timer Switch to a network or directly to a PC or laptop computer.
2. Press and hold down the Reset Button, and cycle the power to the controller. The Heartbeat LED will start flashing twice as fast as normal to indicate that the Timer Switch is in configuration mode.
3. Open a web browser on the computer and navigate to 192.168.1.123.
4. If prompted for a username and password, use username “glance” and password “ai”
5. The controller configuration page should load, see Figures 13 and 14 below.

## How to configure the controller

On the Configuration Panel web page, set up the following parameters:

1. Device ID – Unique device ID used by Glance central software (allocated by the manufacturer – do not change unless requested by the manufacturer)
2. Glance configuration URL – the address the controller uses to connect to Glance (allocated by the manufacturer - do not change unless requested by the manufacturer).
3. Cell Access Point Name (APN) – enter the APN as provided by the cellular service provider being used (allocated by the manufacturer - do not change unless requested by the manufacturer).
4. TCP/IP Settings
  - a. Automatic IP address allocation: Select DHCP - see Fig 13 below.
  - b. Manual IP address allocation: Select Manually - see Fig 14 below. Set the IP Address, Subnet Mask, Gateway and DNS to the desired values

Note: In order to access the local web page in the Timer Switch to be able to program on/off times without using Glance, then the IP address must be set using “Manually”. This will be the IP address that is used in the browser to access the local user interface. By default, this is set by the manufacturer to 192.168.1.5.

When all configuration values have been entered, click the “submit” button. (The submit button may be hidden until valid parameters have been entered for all parameters, after which it will appear.

## How to exit Configuration Mode

1. Once everything is configured correctly press cycle power to the unit, without holding down the reset button.

## AI501 Configuration Panel

Identification	
Device ID	<input type="text" value="52"/>

Connection	
Cell Access Point Name (APN)	<input type="text" value="wyles.com.attz"/>

TCP/IP Settings	
Configure IPv4	<input type="radio"/> Manually <input checked="" type="radio"/> Using DHCP

Glance Configuration	
URL	<input type="text" value="http://68.118.118.180:2349/"/>
<input type="button" value="Submit"/>	

Figure 14

## AI501 Configuration Panel

Identification	
Device ID	<input type="text" value="52"/>

Connection	
Cell Access Point Name (APN)	<input type="text" value="wyles.com.attz"/>

TCP/IP Settings	
Configure IPv4	<input checked="" type="radio"/> Manually <input type="radio"/> Using DHCP
IP Address	<input type="text" value="192.168.1.5"/>
Netmask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="192.168.1.1"/>
DNS1	<input type="text" value="192.168.1.1"/>

Glance Configuration	
URL	<input type="text" value="http://68.118.118.180:2349/"/>
<input type="button" value="Submit"/>	

Figure 15

## Changing the SIM card

If you want to use your own SIM card you will need to install a standard size SIM card. Take off the top lid of the box and slide your SIM card into the slot. You will need to ask your cellular provider what APN they use. You configure the APN settings in the step above.

Please note that some SIM cards in Europe have a SIM lock code enabled. If a SIM card locked then we cannot communicate with the SIM card. Place the SIM card in your telephone and disable the SIM pin.

<http://support.apple.com/en-us/HT201529>

<http://www.groovypost.com/howto/android-disable-change-pin-code/>

<http://blogs.technet.com/b/stuffstevesays/archive/2013/05/17/howto-turn-on-off-sim-security-in-windows-phone-8-wp8.aspx>

[http://docs.blackberry.com/en/smartphone\\_users/deliverables/18577/Change\\_the\\_SIM\\_card\\_PIN\\_code\\_60\\_1094958\\_11.jsp](http://docs.blackberry.com/en/smartphone_users/deliverables/18577/Change_the_SIM_card_PIN_code_60_1094958_11.jsp)

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# Chapter 11 – Local Glance Configuration of the Timer Switch

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This local user interface allows a user to configure the beacon schedules without having Glance, or cell data connection to the beacon

## Configure a beacon using the local user interface.

1. Connect a laptop computer to the beacon controller with an Ethernet cable.
2. Change address to manual
  - a. Go to Control Panel
  - b. Navigate to Network and Internet
  - c. Open Network and Sharing Center
  - d. In Windows 8 Open Change Adapter Settings, Vista, click Manage Network Connections
  - e. Right click on “Ethernet”, go to “Properties”, and then choose “Internet Protocol Version 4”, click on Properties;
  - f. To set manual IP address, please select IP address:192.168.1.50; Subnet:255.255.255.0
  - g. All other items can be left blank.
3. Open a browser on the laptop (Google Chrome, Internet Explorer, Firefox).
4. Type the following address into the address bar, or click on this link <http://192.168.1.5/>
5. Note that the laptop must be able to access this IP address, without being blocked by a firewall.
6. When the username/password dialog appears enter username: **glance** and password: **ai** . Then click **Submit**.
7. The schedule dialog appears (see Fig 15 below)
8. Select the Current Schedule, or an Exception Schedule by clicking on a row in the left hand box.
9. To edit a Current Schedule or Exception Schedule row, click Edit on the row to be edited.
10. The edit dialog will be displayed (see Fig 16 below). After editing the row parameters (to turn the beacon on or off at the right time, on the right days) click Save.
11. Clear rows as required by clicking next to the row number on one or more rows, and then click **Clear Selected**
12. Once all the rows in the schedule have been edited, then click **Save and Publish** to transfer then data to the beacon.

13. Edit Exception schedules (A through E) in a similar way. Exception Schedules are used for special timing of the beacon such as early release.
14. To schedule holidays and exceptions, click on the **Holidays and Exceptions** tab. The dialog (see Fig 17) will be displayed.
15. Holidays and special days can be added, edited and deleted. Each row can have a special action, to have either the beacon off, or run one of the special Exception A-E schedules.
16. Click **Publish Holidays** to send the new holidays and exceptions to the device.
17. The beacon will run the schedules and holidays entered via the local user interface.

#### **Interaction with Glance between Central Schedule and Local Schedule:**

1. If the local user interface was used to override a schedule that had previously been configured using Glance, then the following behavior is to be expected:
  - a. The local user interface will display the parameters to the user, in the local interface, of the schedules that have previously been configured in Glance.
  - b. Once these have been edits and saved, the beacon will run the local schedules.
  - c. If Glance reconnected, then Glance will not override the local schedule, as the local schedule has a later timestamp than the schedule previously prepared in Glance.
  - d. To force the beacon to run the Glance schedules, edit the Glance schedules (say change a time by 1 minute) and click publish. This will force a download from Glance, which will have a later timestamp than the local schedule.
2. "Last save wins". Neither the central or the local have priority. Whichever schedule is the most recent will run.
3. However, if the local schedule is running, the Glance will display a Schedule mismatch with the brown square next to the device name., as shown below:

« [Prev](#) | [Next](#) »  
■ **ATL Beacon Test DC**

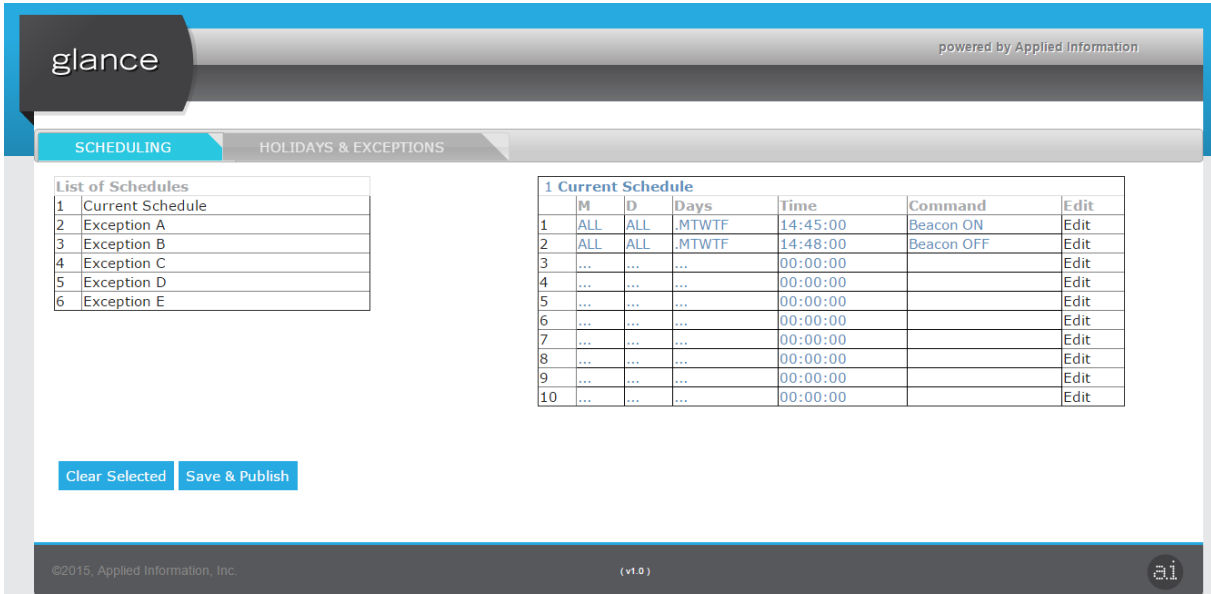


Fig 16: Schedule dialog

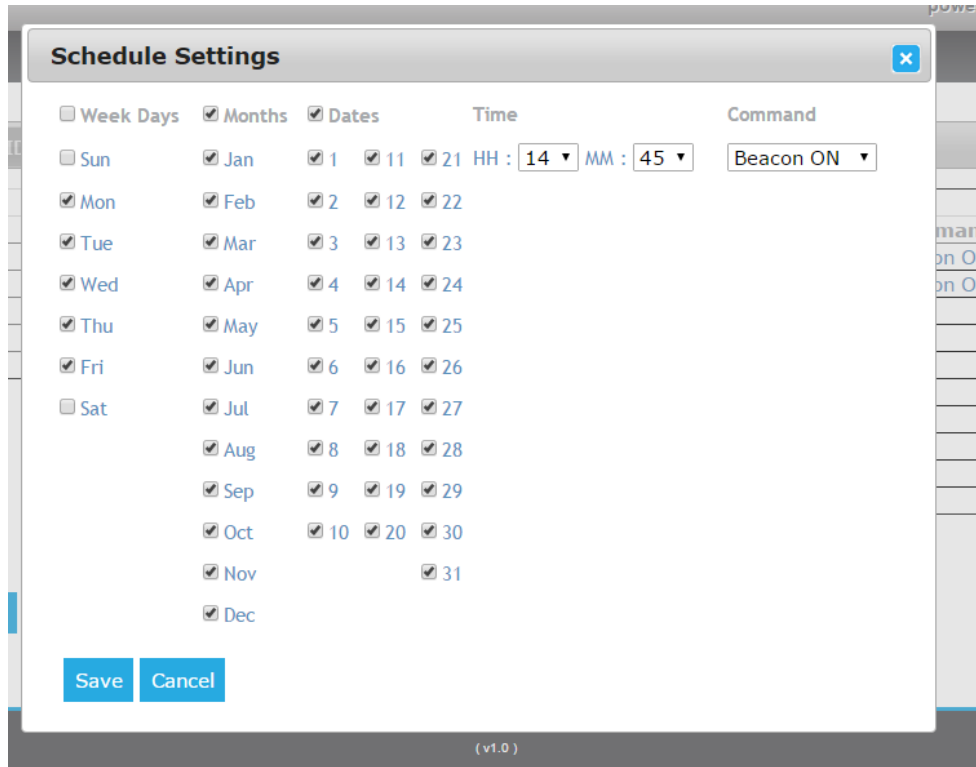


Fig 17: Edit schedule row

	Name	Start (12.00 AM)	End (11.59 PM)	Command	
1	Tuesday Special Nov 17	<a href="#">November 17, 2015</a>	<a href="#">November 17, 2015</a>	Exception A ▾	<input type="button" value="x"/>
2	Sunday school Nov 22	<a href="#">November 22, 2015</a>	<a href="#">November 22, 2015</a>	Exception B ▾	<input type="button" value="x"/>
3	Tuesday Holiday	<a href="#">November 24, 2015</a>	<a href="#">November 24, 2015</a>	Beacon OFF ▾	<input type="button" value="x"/>
4	Holiday	<a href="#">November 27, 2015</a>	<a href="#">November 27, 2015</a>	Exception C ▾	<input type="button" value="x"/>

+Add

Publish Holiday

*Fig 18: Holidays and Exceptions*



# Chapter 12 – Upgrading Software on the Timer Switch

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This chapter will explain how to upgrade the software on the AI-500-070 timer switch.

**Follow the below step by step instructions.**

## 1) **Download and Install Dynamic C software**

To download a bin file to the AI-500-070, you need a serial or USB programming cable with a 2mm header and the Dynamic C RFU (Rabbit Field Utility) software. The Dynamic C RFU software can be requested from your AI representative.

Extract “Dynamic C RFU.zip” to the root in the C: drive.

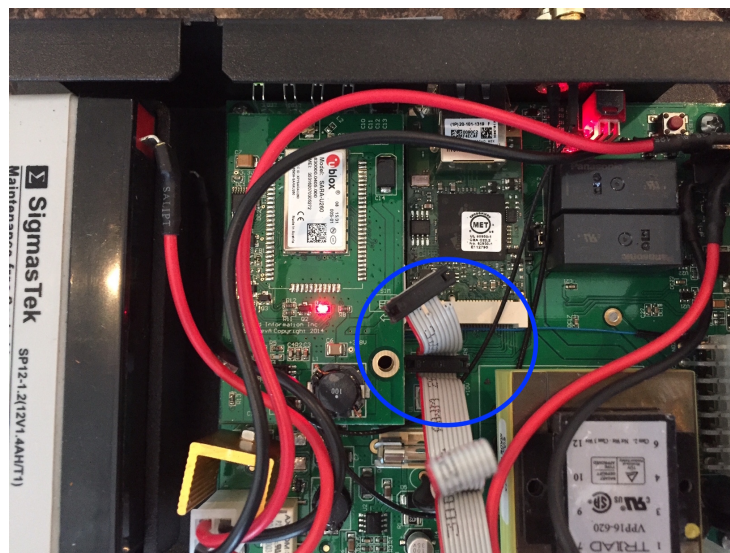
This is necessary as the RFU uses some static paths, which will have to be changed if installed anywhere else.

Run “RFU.exe” from the Utilities folder in: C:\DCRABBIT\_10.70\Utilities\ to start the RFU.

## 2) **Plug the programming Cable onto the AI-500-070 board**

First unscrew the lid off the AI-500-070 timer switch.

Then Plug the programming cable onto the board with the red side of the cable facing the battery as shown on the picture below.



*Fig 19: Programming AI-500-070*

### 3) Download Firmware software

Contact your Applied Information representative for them to send you the correct firmware version. You should receive 3 files.

SchoolBeacon v0.x.x (UB).bin

SchoolBeacon v0.x.x (SW).bin

School Beacon FTP School Beacon FTP Local Web Interface v0.8.3 (with Radar).zip

Save the School Beacon .bin files to a local folder on your C drive.

Extract the .zip file to a folder called "school" in C:\ drive.

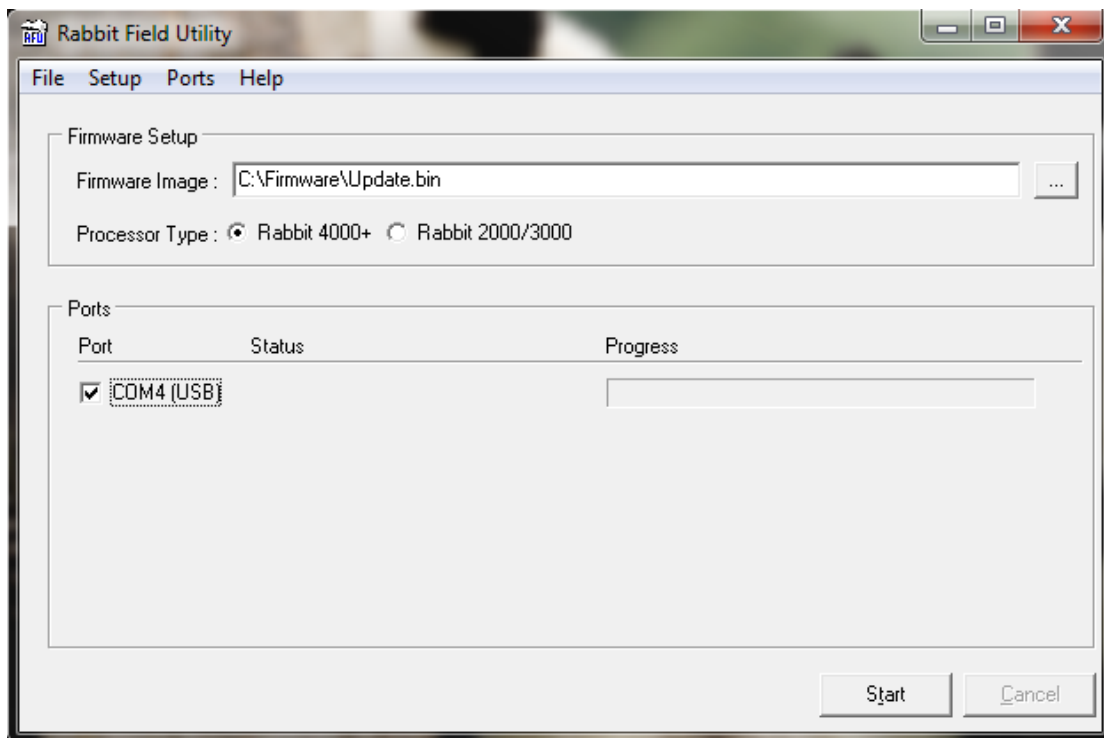
### 4) Send the new Software upgrade to the Controller

Open the RFU and load the .bin file you were provided with in the "Firmware Image" box. You can use the ... button on the right to browse and select the correct file. Check if the modem board has a Ublox or a Sierra Wireless sticker. If the unit has a Ublox sticker then use .bin file that has (UB) at the end of the file name or if a Sierra Wireless then the file with (SW) at the end of the .bin file.

Make sure the Rabbit 4000+ box is ticked for the Processor Type.

If a programming cable is plugged in and seen by the RFU, it will show up in the Ports box, select the USB com port.

If everything is correct, the screen should look similar to this:

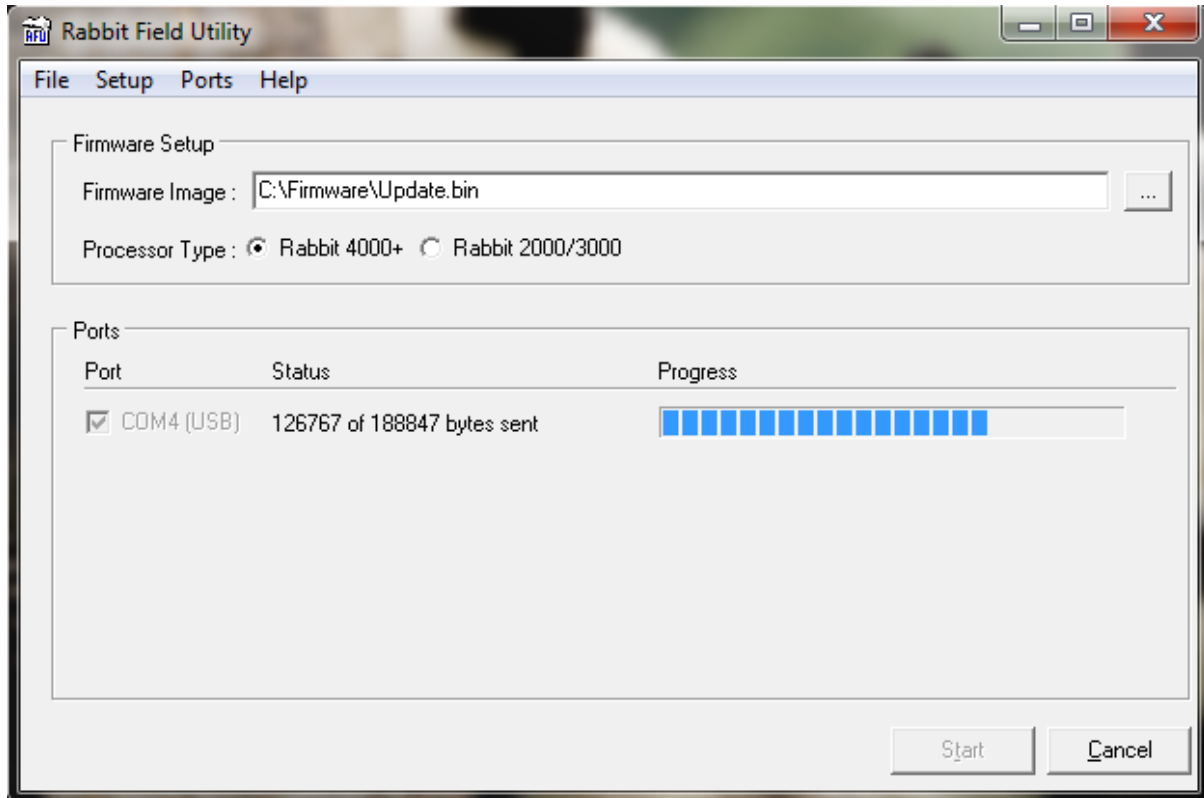


*Fig 20: RFU - Programming AI-500-070*

If no ports show up in the Ports box, then the programming cable is not recognized by the PC or the drivers have not been installed.

In the RFU window, click the checkbox next the programmer port and click the Start button. The status will cycle through “Sending cold loader”, “Sending Pilot BIOS”, “Erasing Flash” and eventually start downloading the new firmware.

The progress will be shown next the programming port.



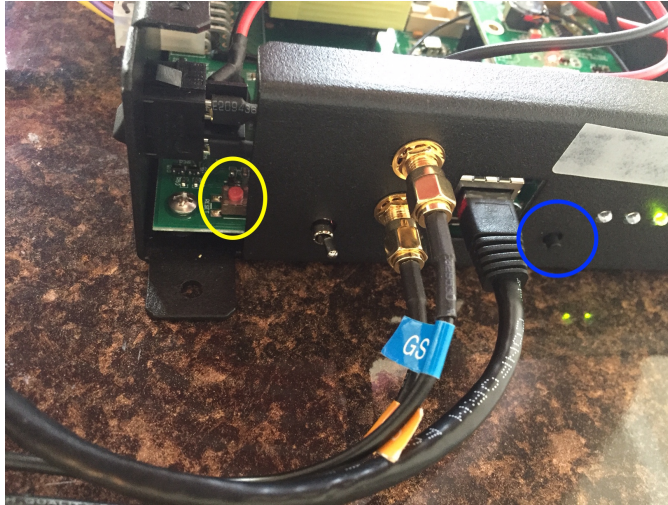
*Fig 21: RFU - Programming AI-500-070 - 2*

If the process fails at any point, check that the AI-500-070 has power and re-seat the programming connector before trying again.

#### 4) **Updating the Configuration Files**

From time to time it may be necessary to update the configuration files on the device. In order to do this, you first need to put the unit in configuration mode:

Hold down the button on the front panel (blue circle) and hit the internal reset button (yellow circle) on the bottom of the unit.



*Fig 22: AI-500-070 Reset Button*

When the device restarts, it will start up in configuration mode.

While in this mode, the heartbeat LED will flash at 5Hz.

While in configuration mode, the devices will all have a default IP address of 192.168.1.123.

Make sure that only one device in configuration mode is plugged into the same network at any given time, to prevent an IP conflict.

Plug in the Ethernet Cable and turn off all other network connections on your computer such as WiFi.

Set your Ethernet network connection to manual

- Go to Control Panel
- Navigate to Network and Internet
- Open Network and Sharing Center
- In Windows 8 Open Change Adapter Settings, Vista, click Manage Network Connections
- Right click on "Ethernet", go to "Properties", and then choose "Internet Protocol Version 4", click on Properties;
- To set manual IP address, please select IP address:192.168.1.50; Subnet:255.255.255.0
- All other items can be left blank.

Open a Windows Command Prompt window. Right click on the windows button and select run. Then type in cmd. This will open a command prompt window.

If using the Command Prompt, navigate to the folder holding the FTP files (C:\School) and run the script:

Type in the command prompt: `cd\` then `cd school` This should then open `C:\School>`

Then type

`C:\School> ftp -s:sbftp.txt`

The FTP process should run automatically after this.

Check for any obvious errors in the process to make sure the files successfully transferred.

If the process fails, ensure that the PC from which the files are transferred are on the same network and subnet as the device (192.168.1.x / 255.255.255.0).

The username and password when using other methods to FTP the files are: [glance](#) / [ai](#)

After the files have been transferred, open any Internet browser (Google Chrome).

Navigate to: <http://192.168.1.123> and continue with the instructions to configure the device settings in chapter 10.

**NOTE: All previous device ID's, APN settings will be deleted when upgrading the unit. Please re-enter the device ID and APN settings and use the manual IP configuration with an IP address of 192.168.1.5.**

Device ID should be printed on the side of the unit.

APN Settings should be: **wyless.com.attz**

IP Address: **192.168.1.5**

Then **Hit** the **submit** button at the bottom of the page.

Take the timer switch out of configuration mode by restarting the unit by either hitting the restart button or by powering the unit off then on again. Your unit should now connect to Glance.

#### **WHAT DO THE LIGHTS ON THE UNIT MEAN?**



**H/Beat:** This is the heart beat and flickers on/off at a steady rate. If the unit is in configuration mode, then this will flicker much faster.

**Modem:** This light will pulse on/off when the modem is connected to the network.

**Central:** This light will come on when data is sent or received from the Glance Central system.

**Beacon:** This light will be on when the beacon (relay) is active.

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