



**AirLink**<sup>TM</sup>  
enabled by Synapse®



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## AirLink enabled by Synapse Frequently Asked Questions

### Commissioning

#### **How many controllers can I manage on a single AirLink network?**

One or more site controllers can manage up to 1,000 devices per AirLink system.

#### **What is the supported distance between wireless nodes?**

Range is approx. 1,000ft with clear line-of-site. Most applications require 300ft.

#### **How many photo cells can be in a zone?**

Only one photo cell is allowed per zone.

#### **How many motion sensors can be in a zone?**

There is no limit to how many motion sensors can be in a zone.

#### **How many zones can a light be a member of?**

As of AirLink 4.0.1, a light can be in 20 different zones.

#### **How many zones can be changed with a single scene?**

One scene can modify the behavior of 8 individual zones.

#### **How many scenes can be triggered with a 5-button switch?**

Each button on a 5-button switch can be configured to toggle through 5 different scenes, allowing a total of 25 scenes to be controlled by the switch.

#### **Is the antenna included with the wireless controller?**

Yes





### **What dimmer curve does AirLink controllers support?**

AirLink controllers pass through the dimming percentage linearly to the LED driver. Our controllers comply with IEC60929 Annex E (0-10V) dimming standards.

### **What photocell control method does AirLink support?**

AirLink supports the open-loop method of photocell control. Sensor thresholds can be configured in AirLink based on the available daylight detected by the connected photocell.

### **How do I add a new controller to an existing system that's using non-default network settings?**

All LSI controllers ship with encryption disabled, enhanced CRC turned off, and are set to channel 1, net id 0xD110. To add a new controller, the settings of the entire existing system must be changed to match the default settings. Once the new controller is successfully added, these settings can be reverted.

### **Why is it recommended to change the default channel and network ID during commissioning?**

There are certain commands built into AirLink that will affect any system within range on this same channel and network ID. If the channel and network ID are not changed from the default, it is possible that another system could be installed at a later date within range of this system and you could have unintended side effects on both systems.

### **How do I add lights to my site controller?**

Once the site controller and the light controllers are all powered, lights can be added to a site controller via 3 different methods:

**Census** - From the AirLink UI, the Census option is available on the top menu bar. Running a census will allow AirLink to search for nearby AirLink light controllers. After all controllers have been discovered, each light can be added by clicking Add next to the discovered light.

**Add Light** - Lights can be added manually, one a time via the Add Light option on the main menu of the AirLink UI. The MAC address of each controller will need to be known in order to add lights with this method.

**CSV Import** - Lights can also be added via the Import Lights option on the main AirLink menu. The file imported must be in .csv format. This method is commonly used when importing lights from one gateway to another, or in order to make a large number of changes to all lights at a single time.

### **How does the AirLink Initial Level setting work?**

The Initial Level, or Initial Light Level, setting dictates the dimming level a light controller will use when wireless connectivity to a AirLink site controller is lost, such as during a power outage. Each AirLink controller can be programmed with an individual Initial Level setting. As of AirLink 4.0.1, this level is set to 100%, but prior to that release the Initial Level defaulted to 80%. The Initial Light Level only comes into play after a controller has been found, added, and updated by a AirLink site controller during commissioning. Prior to commissioning, the Initial Level of a controller is set to the factory default 100%.





**I have added a sensor to AirLink and assigned it to a zone. The lights in my zone, however, are not following the input from the sensor. Why is that?**

After adding a sensor and assigning it to a zone, you must also change the behavior of the zone to follow the sensor. For example, if you added a photocell and assigned it to your Parking Lot zone, you would then need to change the zone behavior under Edit Zone to Photocell-only.

**Can I use a second AirLink site controller as a backup in the event that my primary site controller fails?**

Yes, a backup gateway can be used in the event that the primary fails. The backup would need to stay powered down while the primary is operational. The database can be copied over from the primary to the support gateway. The network settings on the primary and backup site controllers would need to match.

## IP Networking

**How do I assign an IP address to the LAN port of the Site Manager?**

With the release of AirLink 4.0, users can now statically assign an IP address to the LAN port of the site controller. From the user interface of the site controller, go to "Config" followed by "Ethernet Settings". From there, change the Ethernet configuration from "DHCP" to "Static". Then fill in the IP address, subnet mask, default gateway and DNS server information.

## Lighting Control

**What is the difference between a "zone" and a "scene"?**

A zone is a grouping of lights that can all be controlled by that zone. A scene is an action on a group of lights that can also be in a zone or individual. Scenes can include On, Off, dimming, etc.

**Do all controllers support power monitoring?**

No. Please refer to the product brief for each controller to see if power monitoring is supported.

**What power monitoring methodology does AirLink support?**

AirLink controllers that support power monitoring use utility grade true power meter (current and voltage). See controller data sheets for power meter accuracy.

**For controllers that support power monitoring, what is the sampling frequency?**

Power data is collected in 15 minute intervals by the site controller.

**How long is the power data stored on the site controller?**

The site controller will store the data locally for 2 weeks.





### **Does LSI offer a DC powered controller?**

Not at this time, but our team is currently developing one to be released some time 2018.

### **How many sensor inputs can be used on an ALSC?**

As of AirLink 4.0.1, an ALSC controller can accept input from 2 separate sensors (motion, photocell or switch). Prior to 4.0.1, an ALSC, could only accept a single sensor input.

### **Does AirLink use Zigbee?**

No, AirLink uses SNAP: the Things Platform, a Synapse-proprietary wireless protocol built off IEEE 802.15.4, but it is not compatible with Zigbee.

### **What is a light status poll?**

Every 15 minutes, a AirLink site controller polls all lights/controllers it knows about to verify the light/controller is in the correct state (on/off/dimmed). If a controller loses wireless connectivity with the site controller, the controller will set itself to its configured Initial Level, until the next Light Status Poll is received. A light status poll is initiated immediately after a site controller boots, and then every 15 minutes afterward. The easiest way to force a new light status poll is to restart the AirLink site controller.

### **I have configured my motion sensor in AirLink, but the lights in my zone do not come on when I enter the room. What could cause this?**

When configuring a motion sensor in AirLink, you must select the zone that the sensor will control. First, make sure the sensor is configured for the correct zone. You can also check to see if the LSI controller is detecting motion by clicking the zone from the Devices & Zones page, followed by the Sensors tab. The sensors tab will display either Motion or No Motion. Finally, check to make sure the zone behavior is configured for one of the occupancy settings.

### **How long do alarms stay in the system?**

In general, AirLink alarms stay active in the system until they are cleared. Some alarms, such as Communication Failure alarms, can clear automatically when an issue is resolved, while others can only be cleared with user interaction. Configuration Failure alarms, for example, can be cleared by clicking the Retry button on the Alarms page, assuming the configuration change is successful when retried. Some alarms will also remain until a user specifically acknowledges them and checks the box to remove them, such as Authentication Failure alarms.

After an alarm is cleared, it can still be viewed from the Alarms page for 24 hours by switching the alarm filter from Active to All on the Alarms page.

### **How long does the Audit Log store historical information?**

The Audit Log, added to AirLink in release 4.0.1, does not have a specific entry limit, although it does only store information until the number of entries fills the log file. Depending on the messages being logged, the maximum number of entries viewable in the Audit Log will normally be between 15,000-20,000. The amount of time it takes for a AirLink site controller to fill up this log varies depending on the activity of the site controller. A site controller with little activity may take a few months to fill up the log, while a busy site controller may only have logs going back a few days.





## System Configuration

### **When I go to the map page of my site controller, all I see is white space. How do I view my map?**

If the site controller is connected to the Internet via Ethernet or Cellular, it will automatically download a map using the GPS coordinates configured on the site controller. The GPS coordinates are configurable under "Config / Location & Time".

If the site controller is not connected to the Internet, a map can be uploaded using the "Add Floor Plan" feature. From the Map menu, select "Add Floor Plan" and then upload the appropriate image file.

If temporary Internet access is available, the site controller can be connected to the Internet to download a map using the "offline map" feature. From the Config menu, select "Offline Map" when the site controller is connected to the Internet. After the map download is complete, the site controller can be disconnected from the Internet.

### **What methods can I use to upgrade a AirLink site controller?**

Customers can update AirLink site controllers via 2 different methods:

**UI Upgrade** - From the AirLink user interface, an admin can browse to the Config>Backup/Restore page and click the System Upgrade box. This will open a browser to your PC where you can select the applicable firmware file.

**USB Upgrade** - A AirLink site controller can be upgraded via a USB flash drive. Simply load the applicable firmware file on the root directory of the USB drive and connect it to the USB port on the site controller. The upgrade will begin automatically, and the site controller will reboot once completed.

### **How often are AirLink updates made available?**

LSI releases AirLink feature updates on a quarterly basis throughout the year.

### **How can I create a scheduled event for my lights to come on at night and turn off in the morning? I don't want to have to constantly change my schedule as the times for sunrise and sunset change over the year.**

AirLink can use your GPS coordinates to determine dawn, dusk, sunset and sunrise for your part of the world. Before creating the schedule, make sure the date & time is configured on the system under Config / System Date & Time. You will also need to determine the GPS coordinates of your location and enter it under Config / Site Controller Location. When creating the schedule, under event time, you will see the options for specifying dawn, dusk, sunset and sunrise. The system will use your location to determine the correct times for these events.

### **How many AirLink management sessions can be opened simultaneously?**

AirLink does not impose a hard limit on the number of users or sessions allowed to simultaneously access the site controller's AirLink user interface. However, only eight users may be simultaneously connected to a AirLink site controller via Wi-Fi. If more than eight simultaneous management sessions are required, additional users must access the site controller via the Ethernet or cellular interfaces.





### **What's the default login information for a AirLink site controller?**

All AirLink site controllers manufactured prior to 2017 used the same default login information. For security purposes, both the default WiFi and User Interface (UI) passwords were changed for all site controllers manufactured in 2017 or later. The default password change coincides with LSI pre-loading AirLink 4.0 to all new site controllers.

Regardless of manufacturing date, the default UI admin account is snap. When held down for 5 seconds, the middle button on the left side of the site controller will default the UI login information to the factory default settings.

The default WiFi and UI passwords are different per site controller and are labeled on a sticker on the right side of the site controller.

### **How does AirLink handle tiered access?**

AirLink supports 4 different levels of access.

**Admin** - A user with Admin access has full permission to add/remove/edit all devices in the system and the ability to edit all configuration settings. Only users with Admin access can add/remove/edit user accounts. The default Admin account, labeled snap by default, cannot be removed.

**Manager** - Managers cannot add or remove lights or sensors, but can add zones or edit any lights or sensors currently configured. Managers have full access to the Scenes, and Schedule pages, and can view and move lights on the Map page, but cannot add a floor-plan image to the Map. Managers have view-only access to the Config menu. Managers can view the alarms page and have the ability to Retry and clear applicable alarms.

**All Control** - Users with All Control access have the ability to view the Devices & Zones, Scenes, Schedule and Map pages, but cannot edit any of their settings. They can turn on/turn off/dim lights on the Devices and Zones page, but cannot edit devices. They can enable scenes, but cannot create scenes on the Scenes page. They can view alarms on the Alarm Page, but cannot Retry or clear them.

**Scene Control** - Users with this level of access can only see the Scenes page in AirLink and they have the ability to enable all scenes configured. They cannot edit any of the scenes however.

