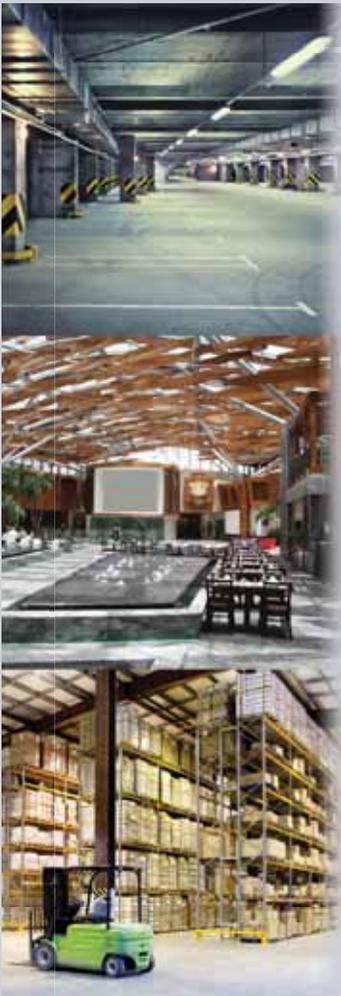


Frequently Asked Questions



SITE SURVEY

1. What is a site survey?

A site survey is a procedure designed to help you assess if SWIFT is the best option for a given job site. It includes a link test and an RF scan. The link test takes approximately 35 seconds per device and it determines the signal strength between devices. The RF scan takes approximately 70 minutes from the time the device is 'active' and it searches for channel activity, interference and background noise.

2. What happens if I don't do a site survey?

To the extent possible it is recommended that a site survey is performed on the premises so as to identify interference issues. It is designed to help you assess if SWIFT is the best solution for your job site.

3. How long does the site survey take?

It depends on the number of devices. Overall you can expect the site survey to take approximately 70 minutes total from the time the last device in the RF scan is active.

4. Is the time for the RF scan 70 minutes per device, or 70 minute total regardless of the number of devices?

The RF scan takes approximately 70 minutes from the time it starts. The devices should be placed in the desired location in order to run the RF scan. It is not a measure of the device performance, rather a measure of noise or interference at the job site.

5. What are the steps to perform the link test of the site survey?

1. Ensure devices are on factory default.
2. Remove the batteries from the devices and address them in ascending order (001, 002, 003, etc.)
3. Power up device 001: Insert one battery into the first battery slot of device 001. The LED will blink yellow for about 20 seconds and will then change to solid red.
4. Place the device in the location where it would be mounted during installation. If the exact location is not possible, then place it as close as you can to that location.
5. Power up device 002: Insert one battery into the first battery slot of device 002.
6. Place the device in the location where it would be mounted during installation. If the exact location is not possible, then place it as close as you can to that location.
7. Observe the Link Test result which is conveyed by the LED light (Solid red: No link; 1 red blink: poor link; 2-3-4 green blinks: Marginal - good - excellent link, respectively.)
8. To test devices 003, 004, 005 etc. repeat steps 5, 6, and 7.
9. Insert the W-USB antenna into your laptop's USB slot, launch SWIFT Tools, and click on "Create New Jobsite"
10. Click "Start" to start Site Survey
11. In the communicator, select the devices for which you want to retrieve site survey data, and review results.

Visit
www.firelite.com/SWIFT
for more information

SITE SURVEY (cont.)

6. What are the steps to perform the RF Scan of the site survey?

To conduct an RF scan, follow the same steps for a link test. However, an RF scan will only be performed on devices that are addressed at 101 or above. So if you are planning to do an RF scan, just do the link test with the devices addressed at 101 or above so that it saves you some time. The devices will go into RF scan 5 minutes after the link test on that device has been completed, and will be completed 70 minutes later.

7. For the RF Survey, is it appropriate to choose a central location or should I perform this in several locations?

The RF scan requires observation of the job site. It is recommended the RF scan is performed in any areas where you think there could be some interference or noise (e.g. machine rooms, RFID scanning areas, etc.)

8. Can I perform a site survey with only two devices?

Yes. You can use two devices and move throughout the site with them and you do not need to power them down, or change the addresses. Toggling the tamper state will start the test. Just keep in mind that you wouldn't be able to use SWIFT tools to retrieve the site survey data as the tool would only retrieve the last two devices/location you tested. Just make sure to wait for the LED blinks on the devices to confirm the signal is good.

9. When doing a site survey with just two devices is it necessary to power down the two devices every time I move locations?

No. You can use two devices and move throughout the site with them and you do not need to power them down, or change the addresses. Toggling the tamper state will start the test.

10. Do I have to be at the site for the RF Test or can I leave them there and come back?

No, you do not have to be at the site. You may leave the devices doing the RF scan and come back.

11. Why does the device need to be on Factory Default to perform a site survey?

This is an intentional condition we established so that a site survey is not done by accident potentially disrupting a mesh that is already formed.

12. How do I restore a device to factory default?

You may do it using SWIFT tools or manually.

Using SWIFT tools:

1. Insert the W-USB dongle into your computer and launch the SWIFT Tools application.
2. On the home screen you can select Site Survey, Create Mesh Network, or Diagnostics.
3. Click Extras and select Set Device to Factory Default.
4. You are now on the Reset Devices screen. Select the desired device, and click Reset.

Manually:

1. Start with the device powered off.
2. Insert one single battery into any slot in the device. The LED will blink yellow twice every five seconds for one minute.
3. Toggle the SLC address wheel using a common screwdriver. Set the address to 0, then to 159, then back to 0.
4. The device will blink green five times, followed by a single or double red blink. This is your confirmation the device is now on factory default.

13. My site survey results are good but once the mesh is formed the performance is even better? Is this normal?

Yes. The site survey can provide more conservative results than the actual system performance, so this is normal. We want you to be confident on the results of the actual system once commissioned.

14. If I am adding devices onto an existing job, can I use the devices already on the mesh to perform the site survey?

Yes. However, the devices would have to be restored to factory default before initiating the site survey. You will need to decide whether a) to bring devices down from their location, restore them to factory default, and reinstall them and reform the mesh after the site survey; or b) to perform the site survey with a different set of devices.

15. Why do you need to take the device out of the base to be able to retrieve the site survey results from SWIFT tools?

The device does not communicate with the tools during the site survey. The site survey needs to be terminated and this is done by removing the device from the base. We are working on a future improvement relative to this feature.

16. I have been told to remember to collapse the mesh before going on site survey. What does “collapse” mean and what is the easiest way to do this?

Collapsing the mesh means to drop all the links between devices so that there is no mesh. All devices will retain their profile information but will be removed from the mesh. Collapsing the mesh can be done via SWIFT Tools, or from a wireless enabled panel. To collapse the mesh network using SWIFT Tools:

1. Connect the W-USB dongle onto your computer and launch SWIFT Tools.
2. On the Home Screen, select Diagnostics.
3. Select a Gateway on the communicator panel (information panel on the right side of the screen).
4. Click View Mesh.
5. Click Advanced Functions on top of the mesh display, and select Collapse Mesh from the dropdown list.
6. Select Collapse Mesh, and click Yes when asked to confirm.
7. The network is now collapsed and a confirmation message will appear on the screen.

CYBERSECURITY AND COMMUNICATION BETWEEN DEVICES

17. Is the communication between devices encrypted?

Yes, the communication throughout the entire system is encrypted. Our system is considered to have interference immunity: it checks for errors on transmission in addition to sending an encrypted message.

18. What happens if a device does not find a second parent?

If a device does not find a second parent it will create a trouble condition and report it as a class A fault.

19. How long does it take to poll the devices?

When the devices are installed as indicated the system meets the NFPA72 10 second latency requirements. Polling is the same as it would be in a wired system.

20. What if someone attempts to set a device off, or tamper with it?

If a device is tampered with a message will be sent to the panel indicating the trouble. This has been demonstrated via UL testing.

21. How can I prevent someone from pushing a program onto the gateway after I have already assigned profiles?

This can be prevented by locking the gateway via password protection.

STATE APPROVALS

22. Is the system approved for use in California?

Yes, it is approved by the California State Fire Marshal (CSFM).

23. Is the system approved for use in Alaska and Hawaii?

To our knowledge there's no regulation prohibiting commercial wireless fire alarm systems from being installed in the referenced states. However it is recommended that the installers contact their local AHJ to see if there are any regulations beyond what's in the national codes and standards. Since the late 1980's, the use of commercial wireless systems have been permitted by the below national voluntary consensus codes/standards:

- International Fire Code (IFC): Section 907.6.1 permits wireless protection systems utilizing radio-frequency transmitting devices that comply with the special requirements for supervision of low-power wireless systems in NFPA 72.
- NFPA 72, National Fire Alarm and Signaling Code: Section 23.16 contains requirements for the use of Low-Power Radio (Wireless) fire alarm systems. These requirements have been in NFPA 72 since 1987.
- ANSI/UL 864: Control Units and Accessories for Fire Alarm Systems: Chapter 86 covers tests for Long-Range Radio Frequency (RF) Devices and Chapter 87 contain requirements for Primary Batteries Test

FIRMWARE UPGRADES

24. Why are firmware upgrades needed? Can I not upgrade my system?

Firmware updates enable the system to operate on the latest functionality developed. All devices in a mesh need to run on the same major firmware version (1.x, 2.x. etc.). If the system is up and running, and no additional devices will be installed, you do not need to upgrade the system. If you are adding a device that can be downgraded, such as a Heat Detector, you can downgrade the device and keep the mesh in the current firmware version.

25. How do I perform a firmware upgrade?

See cheat sheet in Appendix E of the manual.

26. Will we be able to upgrade the devices through the gateway?

Although not available today, upgrading the devices through the mesh network is a future improvement we are working on.

INSTALLATION, FUNCTIONALITY AND SPECS

27. Is the capacity 4 gateways per panel? What if I have 11 panels in one system? Could I then have 4 gateways per panel and have an increased capacity?

No. The capacity per installation is one (1) gateway per mesh network. Since there are four (4) mesh networks per installation, the capacity is four (4) gateways total. Each gateway enables 48 points. The number of gateways is not a function of the number of panels installed.

28. Can the devices be used outdoors?

The SWIFT devices can operate under the following environmental conditions:

- Humidity: 10%RH – 93%RH, non-condensing
- 32°F – 122°F; or 0°C - 50°C
- Storage temperature ranges from 14°F – 140°F; or -10°C - 60°C.

29. What temperature range can the devices withstand?

The SWIFT devices can operate under the following environmental conditions:

- Humidity: 10%RH – 93%RH, non-condensing
- 32°F – 122°F; or 0°C - 50°C
- Storage temperature ranges from 14°F – 140°F; or -10°C - 60°C.

30. Can I place the device in a NEMA 4 enclosure for outdoor use?

The devices are expected to operate under the environmental conditions described in question 28 (also listed on page 55 of the installation manual). The necessary assessments are recommended to ensure any enclosure the devices go into ensure the listed specifications.

31. What type of wire is needed to wire the gateway to the panel?

The same wire that would be used for the SLC, and an optional 24V supply. Note that the requirements for wire type and length for the SLC are the same as they would be for a wired device, and depend on the panel you are working with. For more information see the panel manual for approved wire types.



For more information on Fire-Lite's Wireless Solutions,
visit www.FireLite.com/SWIFT