REQUIRED TOOLS AND EQUIPMENT TO PERFORM AN RF SCAN TEST

Small Flathead Screwdriver

Batteries
CR123A 3v
(Panasonic or Duracell)
One per each device

2 or more SWIFT Devices
All SWIFT devices must be in the factory default state.

SWIFT Detector Bases

Windows® Laptop with SWIFT Tools

W-USB Software Interface
W-USB software may need to be updated before use with SWIFT Tools. SWIFT Tools will automatically update the software, if necessary.
BEFORE PERFORMING AN RF SCAN TEST

Ensure you are running the latest version of SWIFT Tools

Use SWIFT Tools to update all devices to the latest firmware version. All devices must be running the latest firmware for proper functionality.

Ensure devices are in the Factory Default state

With the address code wheels set to 000, insert one battery into the device. The LED on the front will blink red if the device is in the factory default state.

If the device is not in the factory default state, follow the directions below.

RESET DEVICES TO FACTORY DEFAULT

Use SWIFT Tools to reset devices to the factory default state

1. Insert the W-USB adapter into your computer and launch the SWIFT Tools application
2. On the home screen, select Site Survey, Create Mesh Network, or Diagnostics.
3. Click Operations and select Set device to factory default.
4. You are now on the Reset Devices screen. Select the desired device and click Reset.
PREPARE WIRELESS DEVICES

1. Tamper each device by removing the base or cover plate and remove the batteries.

2. Use a screwdriver to set the address on each device. Addresses must be between 101-159, and must be in ascending order. For example, if the first device is set to address 101, the second device should be 102. When the test begins, the devices will first perform a Link Test followed by an RF Scan Test.

CONDUCT LINK TEST

1. Insert one battery to power up the device with the lowest address.
   Note: You can insert the battery into any slot in the device. Once the battery is inserted, the device LEDs will blink red twice every five seconds. If the device is not showing this pattern, it is not set to the factory default state. Refer to the previous page for instructions on how reset the device.

2. Place the device in its intended location in order to increase accuracy of the link test.

3. Twist the device into its base.

4. Observe the LED pattern.
   The device will blink yellow once every half second for 20 seconds and then turn on steady red. The device is now ready to perform a link test to the device with the next highest SLC address. Proceed to step #5.
5. Insert one battery to power up the device with the next highest SLC address. For example: set device to address 102 if the first address on the device used in the link test was 101.

6. Place the device in its intended location in order to increase accuracy of the link test and RF scan.

7. Twist the device into its base.

8. Observe the progress of the link test. The LEDs on the device will blink once every half second for 20 seconds. After this, the results of the link test can be observed.

9. Observe Link Test results.

- 4 blinks = Excellent link
- 3 blinks = Great link
- 2 blinks = Good link
- 1 blink = Poor link
- Solid Red (on steady) = No link

10. CONDUCT RF SCAN

After 5 minutes, the device will transition to the RF Scan. The scan will run for no more than 70 minutes. Progress and results of the RF Scan will be shown using LED patterns.

Note: If no RF channels are available, the blink patterns that are shown below will blink red instead of green.

RF Scan Test progress

- 7 blinks every 30 seconds = 70 minutes until completion
- 6 blinks every 30 seconds = 60 minutes until completion
- 5 blinks every 30 seconds = 50 minutes until completion
- 4 blinks every 30 seconds = 40 minutes until completion
- 3 blinks every 30 seconds = 30 minutes until completion
- 2 blinks every 30 seconds = 20 minutes until completion
- 1 blink every 30 seconds = 10 minutes until completion

RF Scan Test results

- Solid Green = Good
- Solid Red = Poor

11. To test additional devices while the first and second devices are mounted, repeat steps 5-9, but use SLC addresses that are higher than those that are currently testing. These addresses must also be in ascending order.
ANALYZE LINK TEST AND RF SCAN DATA IN SWIFT TOOLS

1. Insert the W-USB into your laptop’s USB port. Launch SWIFT Tools.
   Note: W-USB software may need to be updated before use with SWIFT Tools. SWIFT Tools will automatically update the software, if necessary.

2. Click Create on the Create New Jobsite screen.
   Note: An existing jobsite can also be used.

3. Enter jobsite information.
   1. Enter jobsite name.
   2. Enter jobsite location/description.
   3. Click Create.

4. Click Start on the home screen to start the Site Survey function.

5. Tamper the devices to return them to the factory default state once they have completed the Link Test and RF Scan.
   Caution: Do not replace the base or cover plate onto a device that is in site survey mode or the existing results will be replaced. Refer to the SWIFT manual for more information.

6. In the Communicator Panel, select the devices from which you wish to retrieve data.
   Note: Only devices that have site survey data can be selected. Devices collect site survey data by performing an RF Scan or Link Quality Test as described on pages 4 and 5.
7 Click **Retrieve**.

Once the data is retrieved, click **Next** near the bottom right of the screen to view the results of your Link Test and RF Scan.

8 View your Link Test and RF Scan results.
To view more detailed results, click **Detailed View**.
To export data to an Excel spreadsheet, click **Export to Excel**.

Note: Link Test and RF Scan data will only appear in SWIFT Tools if a full Link Test and RF Scan were performed on the selected devices.