

## TROUBLESHOOTING GUIDE IMAGE SENSOR RF SIGNAL STRENGTH

The Alarm.com Image Sensor communicates over a radio frequency (RF) to the Image Sensor daughterboard attached to the Alarm.com gateway module. For proper operation, the Image Sensor requires a minimum of 30% signal strength. Over 40% is recommended. The signal strength reading can be verified via the Alarm.com Dealer Website and directly on the control panel. While there are no repeaters to increase Image Sensor RF range, proper antenna orientation can significantly enhance signal strength and performance.

## **Verifying RF Signal Strength**



On the **Dealer Website**, pull up the customer account and click "Equipment" under the "Customer Support" section. On the "Image Sensor" tab, the Image Sensor List table shows the signal strength as last reported by the daughterboard. Click "Request Latest Info" to retrieve the most updated information from the system. This signal strength reading represents an average of the last 5 signal readings reported to the daughterboard. To request a real-time signal strength reading from the sensor, click "Image Sensor Signal Strength History" from the AirFX Remote Toolkit Image Sensor Commands list. Once on the signal strength page, click "Request Signal Strength from System". The reading may take a few minutes to come back, but will be an instant reading from the sensor on its current signal strength. This command is useful for verifying signal strength while determining the best mounting location for the sensor.



From the **Simon XT 1.3 & up**, check signal strength under "System Programming"  $\rightarrow$  [Installer Code]  $\rightarrow$  "Interactive Services"  $\rightarrow$  "Image Sensor Setup"  $\rightarrow$  "Image Sensor Settings"  $\rightarrow$  "Image Sensor #[X]"  $\rightarrow$  [signal information]. This signal strength reading represents an average of the last 5 signal readings reported to the daughterboard. When verifying signaling for a mounting location, put the sensor in walk test mode (via the panel menu or by tampering the sensor) and perform a walk test to ensure that the readings at the panel are reflecting the current sensor location.



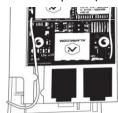
From the **Simon XTi**, check signal strength under "Programming"  $\rightarrow$  [Installer Code]  $\rightarrow$  " Interactive Services"  $\rightarrow$  "Image Sensor"  $\rightarrow$  "Status"  $\rightarrow$  "[X][Sensor Name]  $\rightarrow$  "Signal Strength". This signal strength reading represents an average of the last 5 signal readings reported to the daughterboard. When verifying signaling for a mounting location, put the sensor in walk test mode (via the panel menu or by tampering the sensor) and perform a walk test to ensure that the readings at the panel are reflecting the current sensor location.

## **Antenna Configuration: Daughterboard**

It is important to be sure that Image Sensor Daughterboard's white antenna is pulled away from the Alarm.com module. Follow the panel-specific antenna routing guidelines to optimize sensor range.

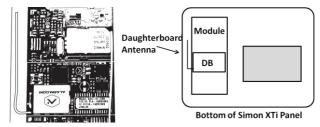


On the **Simon XT**, the antenna should be pulled down off the Alarm.com module and routed in a "J" shape to the left towards the corner of the panel (when looking at the panel from behind).





**On the Simon XTi**, Bend the antenna at a 90° angle ¼ of an inch from the edge of the daughterboard. The daughterboard antenna should rest inside the panel's plastic casing, parallel to the panel.



## **Antenna Configuration: Image Sensor**

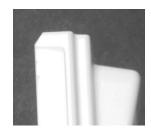


Signal strength can be improved by extending the white antenna, which rests inside the Image Sensor plastic casing, outside of the sensor.

1) Remove the back from the Image Sensor. While looking at the inside of the sensor back, use a pair of scissors to snip off the top right hand corner of the sensor back.







2) Pull the white Image Sensor antenna out from inside the plastic case and stick it straight up. Replace the sensor back and close the sensor ensuring that the antenna position allows the back to fully close.





3) Leave the antenna pointed straight up, or bend antenna back and down to conceal antenna once mounted. Continue with mounting and RF testing in final mounting location.



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