

# The following Frequently Asked Questions and Answers are for the Bird-Zap Shock Track System

Bird-Zap Shock Track is an energized track system designed to keep birds from landing, sitting or roosting on a variety of architectural surfaces. This system is assembled from several different components. Which components are used, why they are used and how they are connected are often questions from our customers. NOTE: If you need help with determining track quantities, spacing on the surface and installation steps please refer to the **Bird-Zap Shock Track Product Brochure** and the **Installation Guide**.

#### Q: Will it work under water or snow?

A: NO. If you cover the track with water, snow or debris you will get a dead short and the system will not function. You need to keep this in mind before you install an active electrical system. It will require frequent inspection and occasional maintenance to keep the system performing as expected.

#### Q: Can I use adhesive to fasten the track?

A: YES. While we always recommend mechanical fasteners, adhesive can be used. Always test the adhesive on a small area first to make sure it is compatible with the track and surface. Leave a gap of 2 - 3 inches every 12 - 24 inches in the adhesive so water can drain from the surface.

#### Q: Why use the Quick Connectors?

A: SPEED. Use Quick Straight Connectors to fasten the track to the surface, join two ends of track together and create a Jumper Wire point that can connect the track to other tracks or to the charger. Use Quick Corner Connectors to quickly create 90° corner connections where two runs of track meet at an inside or outside corner.



# Q: Do I have to use Crimp Connectors?

A: YES. Crimp connectors are used to make all of the trackto-track and track-to-charger connections. Anytime you use the Jumper Wire to connect runs of track together or when you connect the track to the charger, you will need to make at least 4 crimp connections. Take your time, be thorough and test the voltage frequently to avoid missing a bad crimp.



#### Q: What type of charger do I need?

A: It depends on how you want to power the track. If you want to use 120 Volts AC, use a Plug-In Charger (#ST PW100 or #ST PW300). If you have good sun exposure but no access to power, use a Solar Powered Charger (#ST PW50S, #ST PW100S or #ST PW200S). If the installation is remote, temporary or portable, use a Battery Powered Charger (#ST PW250B or #ST PW350B).



# Q: What size charger do I need?

A: The amount of track you install dictates the charger size. Here is a quick reference guide:

Ft/Track	# Plug-In	# Solar	# Battery
0-500'	ST PW100	ST PW50S	ST PW250B
500'-1000'	ST PW300	ST PW100S	ST PW350B
1000' +	*Mulitple	ST PW200S	*Multiple

\*Use more than one charger for larger installations. It is common to power separate sections of a larger installation with individual chargers.

# Q: Can't I just use a big charger for everything?

A: NO. Match the charger size to the quantity of track installed. Overpowering an installation can damage the installation and create unforeseen hazards.

# Q: How many amps do the Plug-In chargers draw?

A: Both the ST PW100 and ST PW300 draw the same amount; 0.017 Amps or 17 mA (milliamperes). A typical circuit in a home has 120 Volts and 15 amps AC.

#### Q: Do I need a dedicated circuit for Plug-In chargers?

A: NO. While we recommend using a separate circuit it is not required. A dedicated circuit allows you to shut the power off independent of electrical systems. This is particularly useful when you have heavy rain, snow or debris falling on the track and shorting it out.

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# Q: Can Plug-In Chargers be left out in the weather?

A: NO. They are not designed to be exposed to the weather. If installed outside a Plug-In charger **MUST** be protected. We recommended using a NEMA 3R rated weatherproof utility box (purchased separately) to protect Plug-In chargers.

#### **Q:** Do I need to install or use a separate ground?

A: NO. The Bird-Zap Shock Track is not an electric fence and does not require the use of grounding rods or connections to earth grounds. The two conductors on the track are connected directly to the two terminals on the charger. The bird becomes the ground when it touches both conductors on the track.



#### Q: Is the track wired in Series, Parallel or both?

A: SERIES. Bird-Zap Shock Track is wired in a 'series' style circuit. This means that all of the track can be connected to the charger with just two wires. This is the fastest and easiest method and uses the fewest number of connections.

# Q: How much power is lost over a length of the track?

A: Solar and Battery Powered Chargers lose about 50 volts for every 5 foot of track. When testing, the DC voltage at the point farthest from the charger should not be less than 800 total. Any less means you have to use a larger charger or split the installation into two parts each with its own charger. Plug-In chargers lose the same voltage, but because they deliver the power differently, the voltage at the end can not be less than 500 volts DC total.

# Q: How much power do the chargers make.

A: Chargers are usually rated in 'Joules'. Small chargers have 0.05 or 0.10 Joule output. Larger ones put out 0.30 Joule. However, since most people don't know what a Joule is we try to express it in a range of volts DC. The big chargers put out anywhere from 9,000 to 15,000 volts of intermittent DC power. Smaller units put out 5,000 to 10,000 volts of intermittent DC power.

# Q: Why does my charger make a "clicking" noise?

A: These chargers create "intermittent pulse" DC power. The clicking noise is the charger releasing stored energy down the wires to the track. The large units 'click' about every 3 seconds. The smaller charger models make very little or no noise at all.

#### Q: What does Low Impedance Charger mean?

A: Low impedance chargers have the ability to regulate their output to maintain a constant voltage supply even if there is a low intensity short (i.e. grass or light debris touching both conductors). If this happens the charger temporarily increases the power to compensate. It does not fix shorts like water immersion, snow or heavy debris.



#### Q: Can I use any electric fence charger?

A: NO. The chargers we offer are matched to the Bird-Zap Shock Track system. Not all electric fence chargers work the same. Hooking up the wrong type of charger could be very dangerous. If you use your own charger it MUST match the specs we have for our Bird-Zap Shock Track system chargers.

#### Q: Why can't I use my own multimeter to check the voltage?

A: The chargers are putting out intermittent pulse DC power. You must use a meter or tester designed to read this type of energy. Typical multimeters are not designed to read intermittent pulse DC. We offer both analog and digital testers to confirm intermittent DC voltage levels. A tester is a must to confirm your connections and power levels of your Bird-Zap Shock Track installation.

# Q: Must I put up warning signs.

A: YES. It is cheap insurance against possible interactions with the energized track and people that are unaware of the energized system. A few warning signs are a simple way to avoid possible problems.

If you have any questions that are not on the FAQ, please contact Nixalite of America Inc. We are at your service.

ALWAYS Read, Understand & Follow Installation Instructions. Bird-Zap Shock Track is an active deterrent system and will require regularly scheduled inspections and maintenance. If you have any questions or comments, please contact Nixalite at 800.624.1189 or visit our website at www.nixalite.com



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