

Rattlegun

Operating Instructions Model No. SGR1100



NOTICE: Before operating the Rattlegun, thoroughly read, understand and follow these instructions. Keep these instructions with product for future reference.



Snakeguns, LLC. has a policy of continuous product improvement. Please visit snakeguns.com to confirm current design specifications.

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Guide to Warnings within Manual

The following is a list of warnings used within this manual and should be read in their entirety to ensure safe practices.

DANGER

A DANGER refers to operating procedures, techniques, etc., that, if not followed carefully could RESULT IN DEATH.

WARNING

A WARNING refers to operating procedures, techniques, etc., that, if not followed carefully could RESULT IN INJURIES OR DEATH.

CAUTION

A CAUTION refers to operating procedures, techniques, etc., that, if not followed carefully could RESULT IN DAMAGE TO EQUIPMENT or LOSS OF SERVICE to customers.

NOTICE

A NOTICE refers to information that is considered important but not hazard related.

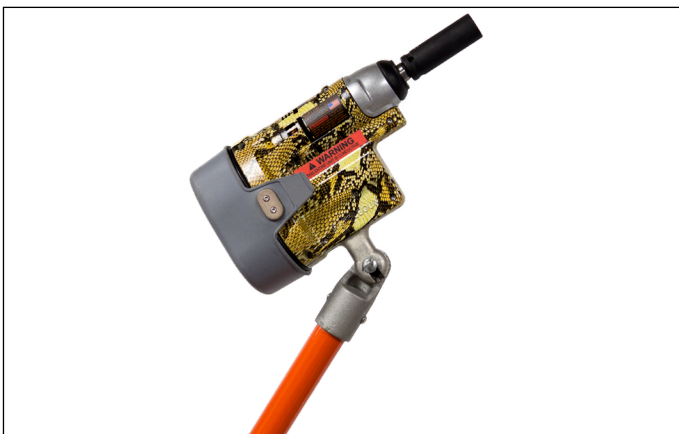
Product Safety

⚠ DANGER

Minimum Approach Distances (MAD) must be maintained, based upon the voltage involved. For the latest information and charts refer to the official OSHA website: <https://www.osha.gov>

⚠ DANGER

The entire Rattlegun main unit (housing) is considered conductive. The metallic universal coupling is electrically connected with the impact wrench. On energized conductors, always use an appropriate length insulated Hot Stick even when wearing rubber gloves. Holding the universal coupling, or other parts of the Rattlegun unit, with rubber gloves may be a violation of the Minimum Approach Distance (MAD). Always use applicable work practices and procedures.



CORRECT USE



INCORRECT USE

⚠ WARNING

Do not allow the universal coupling to become grounded in any way, or to contact another conductor as this could cause severe personal injury or damage to equipment.

⚠ WARNING

Before utilizing the Rattlegun on or near energized conductors, always be sure the conductive rubber boot is properly installed over the battery. Without the properly installed conductive rubber boot, damage to the electronic components may occur. This will also void the warranty.

⚠ CAUTION

The equipment covered in this manual must be used and serviced only by competently trained personnel familiar with and following approved work and safety practices. This equipment is for use by such personnel and this manual is not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

These instructions neither cover all details or situations in equipment use, nor do they provide for every possible contingency to be encountered in relation to installation, operation or maintenance. Should additional information and details be desired or if situations arise which are not covered adequately for the user's purpose, please contact Snakeguns, LLC.

Product Safety (cont.)

WARNING

Only use accessories that are rated for impact applications. Impact rated accessories have been heat treated to increase their hardness and are subject to chipping and cracking. Inspect attachments and accessories prior to use to ensure that their condition has not degraded beyond a safe level. Damaged impact rated accessories may break, causing personal injury or damage to equipment.

To prevent unintentional operation of the Rattlegun system, confirm the battery pack has NOT been installed in the wireless impact wrench. The remote control should only be turned on once you are ready to test and use the Rattlegun system.

Battery Pack Safety

WARNING

Remove the battery pack from the Rattlegun before making any adjustments, changing accessories, or storing the Rattlegun system. The battery pack will discharge if left installed in the Rattlegun during storage.

Follow all battery instructions that are included with the charger. When uninstalled, keep the battery away from any metallic objects that could short circuit the battery terminals. Avoid contact with any leakage from the battery. If a leak does occur, flush with water and seek medical help if there is contact with the eyes.

Fire hazard. Do not store, carry, or ship batteries such that metal objects can contact exposed battery terminals.

Transporting batteries can possibly cause fires if the battery terminals inadvertently come in contact with conductive materials. The U.S. Department of Transportation Hazardous Material Regulations (HMR) prohibits transporting batteries in commerce or on airplanes (i.e., packed in suitcases and carry-on luggage) UNLESS they are properly protected from short circuits. When transporting individual batteries, make sure that the battery terminals are protected and well insulated from materials that could contact them and cause a short circuit.

Never attempt to open the battery pack for any reason. Do not crush, drop, or damage battery pack. If the battery pack case is cracked or damaged do not attempt to charge or use. Damaged packs or batteries at the end of their useful life should always be properly recycled.

Personal Safety

⚠ DANGER

SAFETY FIRST.

Use common sense when operating any power tool. Do not use this tool while tired or under the influence of alcohol, drugs, or medication. Stay focused and keep control of the tool at all times.

Ensure that unintentional operation of the remote control does not compromise safety.

Do not use the Rattlegun system if any part is not operating correctly; remove from operation until it is repaired or replaced. Use only authorized repair parts and services.

Personal protective equipment, including eye and hearing protection, must be properly utilized while operating the Rattlegun system. Keep loose clothing and hair away from the Rattlegun main unit. Follow all applicable government and employer safety regulations.

Do not operate the Rattlegun system in explosive atmospheres, such as in the presence of gases, dust, or flammable liquids. Refer to articles 500 through 504 of the most recent National Electrical Code for more information.

When used around energized equipment, avoid body contact with the Rattlegun main unit as the entire housing is conductive. Must be used with an appropriate length insulated Hot Stick.

Do not allow the Rattlegun main housing to bridge between conductors at different potentials.

Always inspect the Rattlegun system prior to any use. Ensure that all components and attachments are properly installed before operation. Ensure proper operation in a safe environment prior to any work.

Use only impact rated accessories. Non-impact accessories may break and cause a hazardous condition. Inspect accessory prior to use to ensure that contains no cracks.

Do not cover or allow any foreign objects to enter the air vents on the Rattlegun unit.

The Rattlegun may become hot during operation, gloves should be worn when installing or uninstalling from the Hot Stick. Do not operate the Rattlegun for extended periods of time.

Function and Design Overview

The Rattlegun¹ is a wireless battery powered impact wrench that allows a properly trained Lineman to safely install and remove bolted connections / hardware by use with an appropriate length insulated Hot Stick while working near energized conductors. Due to the presence of energized conductors, the impact wrench must be operated by means of wireless telemetry via a remote control. The radio linked controller allows the operator to safely control the speed and rotational direction of the impact wrench socket.

The patented conductive rubber boot (battery cover) is a vital component to the Rattlegun system. Its main function is to continue the shielding necessary to protect the sensitive electronic components. Proper attachment of the conductive rubber boot maintains complete shielding around the battery. When properly installed, it also serves to physically prevent an improperly connected battery pack from falling out. Usage of the Rattlegun without the conductive rubber boot will void the warranty. Do not use a damaged, torn, or ripped conductive rubber boot.

The remote control unit is designed to be installed in a Hot Stick mountable cradle. If allowed by applicable work practices and procedures, a single Lineman can operate the Rattlegun and remote control simultaneously. When properly installed on a Hot Stick, the remote control unit should never be subjected to mechanical impact or contact with energized sources. The remote control unit must not violate the Minimum Approach Distance (MAD).

If the remote control unit is not installed in the Hot Stick cradle, the operation of the Rattlegun will require a second Lineman to safely control the Rattlegun operation while in full communication with the Lineman that is applying the Rattlegun. Always use applicable work practices and procedures.

1. US Patent #9393683 and others

WARNING

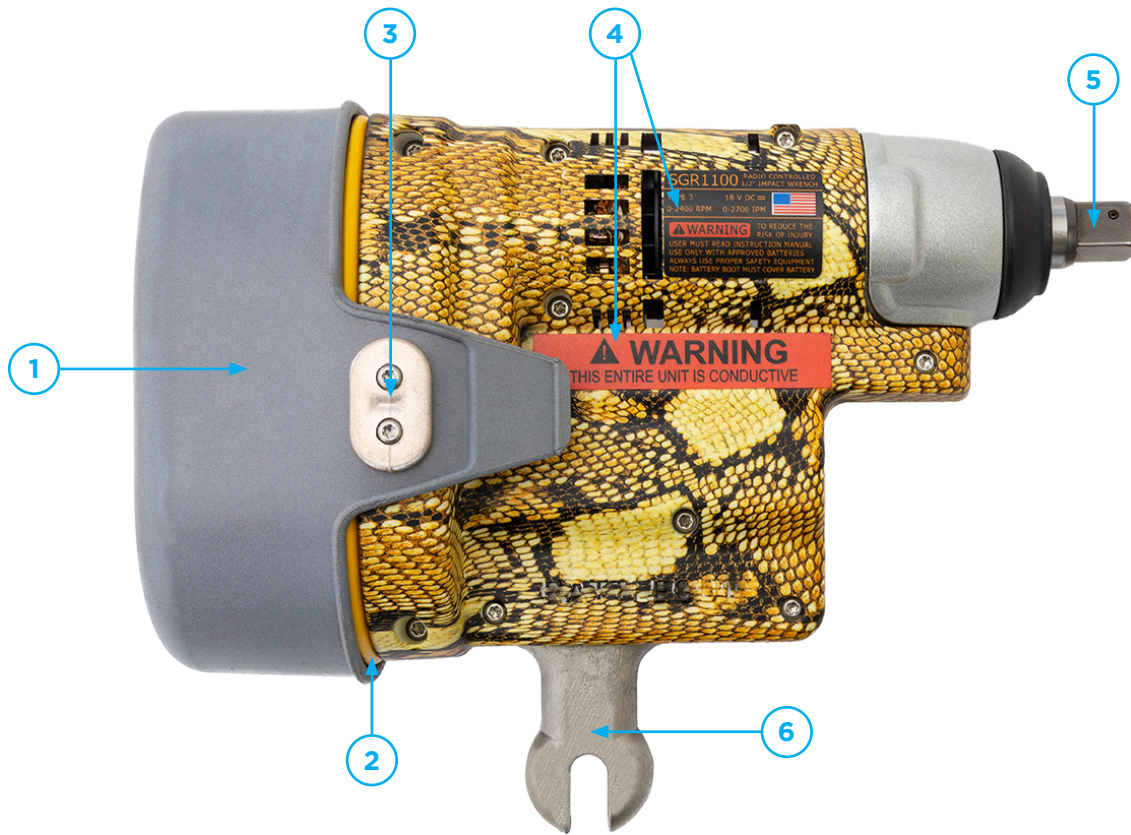
Always use an appropriate length insulated Hot Stick while working near energized conductors.

Proper attachment of the conductive rubber boot continues the shielding necessary to protect the sensitive electronic components. When properly installed, it also serves to physically prevent an improperly connected battery from falling out.

Features

- Portable wireless impact wrench for use around and on energized conductors
- Communicates wirelessly with remote control via linked digital radio
- Variable speed with forward/reverse functions that are controlled by the remote control
- Maximum recommended operating distance between the Rattlegun main unit and remote is up to 100 feet
- Designed and tested for use on systems up to 500 kV AC (Phase-to-Phase system)
- Designed for overhead, underground, and substation applications
- Maximum torque of 145 ft.-lbs / 1740 in.-lbs / 195 Nm
- Rechargeable battery pack for the wireless impact wrench
- Integral universal coupling allows any orientation with an insulated Hot Stick attachment
- Patented conductive rubber boot is designed for safety and proper operation
- Unique cradle for use on insulated Hot Sticks up to 3" dia. for mounting the remote control
- QR code located in the instructions and on the unit
- Large toolbag for easy transport and storage

Impact Wrench Information



1. Patented Conductive Rubber Boot
2. 18 V Battery Pack (underneath the Rubber Boot)
3. Button (front side) and Cap (reverse side)
4. Warning Labels
5. 1/2" Square Drive
6. Metallic Universal Coupling

Remote Control Information



- 1. Power (ON / OFF) Button
- 2. Power LED (green)
- 3. Link LED (blue)
- 4. Forward/Reverse Variable Speed Thumb Control
- 5. Battery Door

Preparing the Rattlegun for Use

1. Rattlegun Safety

To prevent unintentional operation of the Rattlegun system, confirm the battery pack has NOT been installed in the wireless impact wrench. The remote control should only be turned on once you are ready to test and use the Rattlegun system.

2. Visual Inspection

A visual inspection must be performed prior to each and every use. Visually confirm the following:

- a. All warning labels must be present and readable on the Rattlegun system.
- b. The Rattlegun housing is intact with no loose, missing, or damaged parts.
- c. The conductive rubber boot is not torn or damaged.
- d. The conductive rubber boot cap and button must be present and not damaged for proper operation.
- e. The battery pack must not be damaged and the electrical connections must be free of debris and corrosion.

3. Conductive Rubber Boot Care and Maintenance

The patented conductive rubber boot is required for safe operation of the Rattlegun. It must not be damaged. Its main function is to protect vital electronic components. Damage caused by missing or improperly installed conductive rubber boots will not be covered under warranty.

Torn or damaged conductive rubber boots must be replaced before using the Rattlegun system. Only original equipment manufacturer parts can be used with the Rattlegun system. Contact Snakeguns, LLC for information about replacing the conductive rubber boot.

4. Preparing the Remote Control

Determine how you intend to operate the remote control.

- a. Remote: Handheld operation
 - Handheld operation of the remote control requires at least 2 Linemen in constant communication
- b. Remote: Hot Stick mounted operation
 - Refer to the next page for instructions on how to mount the cradle
 - Always use applicable work practices and procedures

5. Battery Pack Installation on Wireless Impact Wrench

Only install the battery pack immediately before testing and use. Remove the battery pack once you are finished with the Rattlegun system and prior to storage.

6. Ensure Proper Operation in a Safe Environment

Always test the Rattlegun system outside of the energized work zone before use.

7. Installing Accessories

Use only impact rated accessories. Non-impact accessories may break and cause a hazardous condition. Inspect accessories prior to use to ensure that they contain no cracks or other issues. Only install accessories when the battery pack is removed from the wireless impact wrench and the remote control is turned off.

Installing the Remote on a Hot Stick

WARNING

Always use an appropriate length insulated Hot Stick while working near energized conductors.



To mount the remote on a Hot Stick, wrap both straps of the case cradle around the Hot Stick and back through the opposite side of the case cradle. Pull the straps tightly into place and secure it with the hook and loop fastener.



Insert the remote into the case cradle. Ensure the case cradle does not slip on the Hot Stick while using the remote control. Excess strap length may be doubled back on itself and secured with the hook and loop fastener.

Operating the Rattlegun

DANGER

Minimum Approach Distances (MAD) must be maintained, based upon the voltage involved. For the latest information and charts refer to the official OSHA website: <https://www.osha.gov>

DANGER

The entire Rattlegun main unit (housing) is considered conductive. The metallic universal coupling is electrically connected with the impact wrench. On energized conductors, always use an appropriate length insulated Hot Stick even when wearing rubber gloves. Holding the universal coupling, or other parts of the Rattlegun unit, with rubber gloves may be a violation of the Minimum Approach Distance (MAD). Always use applicable work practices and procedures.

WARNING

Falling object hazard! Slow the output speed when loosening fasteners to prevent the object from becoming disconnected unexpectedly and falling.

WARNING

Test the Rattlegun system in a safe, non-energized environment before each use. Verify forward and reverse operation, as well as variable speed functionality.

Select the appropriate size impact rated socket required to perform the work. Install the socket onto the 1/2" square drive of the Rattlegun unit. Attach the Rattlegun unit to an appropriate length insulated Hot Stick via the universal connector. Using the appropriate length Hot Stick, bring the socket up to the bolted connection in need of tightening or loosening. Lightly slide the thumb control on the remote to slowly rotate the socket until it mates securely onto the nut or bolt head. The desired output speed can be achieved by moving the thumb control knob further forward for faster rotation, and further back for faster reverse rotation. Rotation stops when the thumb control knob is released.

To tighten a bolted connection: Rotate the Rattlegun in the forward direction at a safe speed until the mating surfaces of the material being tightened bottom out. Increase the forward speed to full power or until impacting begins. Continue impacting until the required amount of tension is achieved, or the fastener will not turn any further.

To loosen a bolted connection: Rotate the Rattlegun in the reverse direction at a safe speed until the impacting begins. It may be necessary to allow the impacting to continue for a few seconds until the fastener becomes loose. Once loose, quickly slow the output speed to prevent unscrewing the fastener too far. Continue slow reverse operation until the fastener is loose or safely removed as required.

Continue to tighten or loosen the bolted connections by this method until the work is completed.

For additional information on Rattlegun operation, please refer to the Rattlegun video manual located on the Snakeguns, LLC website: www.snakeguns.com

Battery Pack Information: Impact Wrench



A low battery condition may be indicated by:

- a stalling or slowing down of the motor without changing the control setting.
- less available torque at the same control setting.
- communications link is interrupted.

NOTICE

This device contains no user serviceable internal components.

CAUTION

Do not damage the conductive rubber boot when replacing the battery. After replacing the battery, test the Rattlegun system in a safe environment away from energized conductors.

Battery Information: Remote Control



A low battery condition may be indicated by:

- the green "POWER" LED does not turn on.
- the blue "LINK" LED is flashing, indicating the communications link is interrupted.

Recommended battery replacement:

- 9 V Alkaline Battery, 310 mA/h

NOTICE

This device contains no user serviceable internal components.

CAUTION

Ensure that unintentional operation of the remote control does not compromise safety. After replacing the battery, test the system in a safe environment away from energized conductors.

Maintenance

The Rattlegun system contains shielded electronic components and, if properly cared for, will provide many years of trouble-free service. Keep all parts clean and dry. **Clean only with cloth dampened with water and mild soap. Do not use solvents or other harsh chemicals as they may weaken the plastic materials.**

Abuse or misuse will damage the unit. Store in a dry location, do not drop, and protect from jostling or impacts during storage, carrying, or use. See "Specifications" on page 17 for operating and storage temperatures and humidity ranges.

CAUTION

Do not drop tool. Do not use if damaged or malfunctioning.

Replacing the Conductive Rubber Boot

Please contact Snakeguns, LLC.

Repairs and Parts

For authorized repair and parts, please contact:



**Snakeguns, LLC.
9903 E. 54th St.
Tulsa, OK 74146
(918) 270-4326
(918) 627-1294 (FAX)
www.snakeguns.com**

User-Replaceable Parts



Conductive Rubber Boot - #RG-0011



Conductive Button - #RG-0018



Conductive Cap - #RG-0015



Remote Control Battery Door - #RG-0008



Cap and Button Screws - #RG-0046



Standard Carrying Bag - #RG-0045B

Specifications

"RATTLEGUN WIRELESS IMPACT WRENCH" Unit Specifications

Weight (w/o batteries): 1.3 kg (2.9 lb)

Weight with included battery pack: 2.2 kg (4.8 lb)

Dimensions: 9.7" L X 4" W X 7.4" H

Power Source: 18 V Ni-CAD Battery, 2.2 A/h

Maximum output torque: 145 ft.-lbs / 1740 in.-lbs / 195 Nm

Anvil size: 1/2" square drive

"RATTLEGUN REMOTE CONTROL" Unit Specifications

Weight (w/o batteries): 0.21 kg (0.46 lb)

Dimensions: 7.3" L X 2.4" W X 1.7" H

Power Source: 9 V Alkaline Battery, 310 mA/h

Both Unit Specifications

Designed voltage range(s): For use on up to 500 kV AC 50/60 Hz Phase-to-Phase systems

Operating temperature range: -20° to +40°C

Operating humidity range: 5% to 95% Rh

Storage temperature: -20° to +40°C (Recommended storage at 21°C +/- 2°C)

Storage humidity range: 5% to 95% Rh (Recommended storage at 45% Rh +/- 8% Rh)

Limitations: Do not use if damaged or malfunctioning. Always use appropriate length insulated Hot Sticks even when wearing rubber gloves. To verify proper operation, always test the Rattlegun unit and the remote control unit in a safe environment before use.

Maximum Designed Operating Distance: Up to 100 ft with unobstructed Line-of-Sight between the wireless impact wrench and remote control. Obstructions between the units may reduce the operating distance.

Battery Charger Specifications

Please refer to the manual that was provided with the battery charger.

FCC

FCC ID: TFB-PROFLEX1

IC: 5969A-PROFLEX1

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warranty Information

"RATTLEGUN SYSTEM" Warranty

Snakeguns, LLC warrants to Buyer that the products sold will be free of defects in workmanship and material for a period of one (1) year from the date of original purchase when stored, operated, and maintained in accordance with recommendations of Snakeguns, LLC and standard industry practice and when used under proper and normal use. Snakeguns, LLC shall in no event be responsible or liable for damages or injuries resulting from modifications, alterations, misapplication, or repairs made to its products by Buyer or others, or for damage caused or injuries resulting from negligence, accident or improper use by Buyer or others. This warranty does not include reimbursement for the expenses of labor, transportation, removal, installation, or reinstallation of the products. This warranty shall run only to the first Buyer of the product from Snakeguns, LLC or the first buyer of that product from that Snakeguns, LLC Buyer (which may include an original equipment manufacturer reselling a Snakeguns, LLC product for the first time), and is non-assignable and non-transferable and shall be of no force and effect if asserted by any person other than such first buyers.

DISCLAIMER OF WARRANTY: THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER WRITTEN, ORAL, EXPRESSED OR IMPLIED. THERE ARE NO WARRANTIES OF MERCHANTABILITY OR FITNESS OF ANY PRODUCT FOR A PARTICULAR PURPOSE.

EXCLUSIVE REMEDY: Any claim by Buyer that a product is defective or non-conforming shall be deemed waived by Buyer unless submitted to Snakeguns, LLC in writing within thirty (30) days from the date Buyer discovered, or by reasonable inspection should have discovered the alleged defect or non-conformity. Any warranty claim must be brought within one year of discovery of the alleged defect or non-conformity by Buyer or third party. Upon prompt written notice by the Buyer that a product is defective or non-conforming, Snakeguns, LLC liability shall be limited to repairing or replacing the product, at Snakeguns, LLC' option.

LIMITATION OF LIABILITY: IN NO EVENT SHALL Snakeguns, LLC BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, MULTIPLE OR PUNITIVE DAMAGES, EVEN IF INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER AS THE RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR ANY OTHER THEORY, INCLUDING WITHOUT LIMITATION LABOR OR EQUIPMENT REQUIRED TO REMOVE AND/OR REINSTALL ORIGINAL OR REPLACEMENT PARTS, LOSS OF TIME, PROFITS OR REVENUES, LACK OR LOSS OF PRODUCTIVITY, LOSS OF USE OF THE PRODUCTS OR ANY ASSOCIATED EQUIPMENT INTEREST CHARGES OR COST OF CAPITAL, COST OF SUBSTITUTE EQUIPMENT, FACILITIES, SYSTEMS, SERVICES OR DOWNTIME COSTS, DAMAGE TO OR LOSS OF PROPERTY OR EQUIPMENT, ANY INCONVENIENCE, COST OR DAMAGE ARISING OUT OF ANY DELAY IN PERFORMING, FAILURE TO PERFORM OR OTHER BREACH OF THE WARRANTY SET FORTH IN HEREIN OR OBLIGATIONS UNDER SUCH WARRANTY, OR CLAIMS OF THIRD PARTIES AGAINST BUYER, ARISING OUT OF OR IN CONNECTION WITH THE SALE, INSTALLATION, USE OF, INABILITY TO USE, OR THE REPAIR OR REPLACEMENT OF THE PRODUCTS SOLD PURSUANT TO THESE TERMS. IN NO EVENT SHALL Snakeguns, LLC'S TOTAL LIABILITY IN RESPECT OF ANY AND ALL CLAIMS OF ANY KIND WHETHER IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH, OR RESULTING FROM Snakeguns, LLC'S SALE, DELIVERY, RESALE, REPAIR, REPLACEMENT OR FURNISHING OF ANY PRODUCTS, INCLUDING PERFORMANCE OR BREACH OF THE WARRANTY SET FORTH HEREIN OF THESE TERMS, EXCEED THE PURCHASE PRICE ALLOCABLE TO THE GOOD(S) THAT GIVE RISE TO THE CLAIM, AND ANY AND ALL SUCH LIABILITY SHALL TERMINATE UPON THE EXPIRATION OF THE APPLICABLE WARRANTY PERIOD FOR SUCH GOOD(S).

INTELLECTUAL PROPERTY INDEMNITY: If Snakeguns, LLC is using a design provided by or on behalf of Buyer, Buyer shall indemnify and hold harmless Snakeguns, LLC for any and all claims or demands of infringement of a third party's intellectual property rights.

Warranty Information (cont.)

"RATTLEGUN SYSTEM" Warranty (cont.)

DELIVERY AND RISK OF LOSS: All shipments within the continental United States are F.O.B. Origin as defined by the Uniform Commercial Code, with risk of loss and title to products passing to Buyer upon delivery to the designated carrier. Shipments to Alaska and Hawaii are F.O.B. Origin freight prepaid to the Pacific Coast docks, as defined in the Uniform Commercial Code; collect beyond with risk of loss and title to products passing to Buyer upon delivery to the designated carrier. All shipments destined for locations outside of the United States, excluding Canada, are F.C.A. (Incoterms® 2010) with risk of loss and title to products passing to Buyer upon delivery to the designated carrier in the United States. All shipments destined to locations in Canada shall be Delivered Duty Paid (Incoterms® 2010) with the exception that risk of loss and title to products passes to Buyer upon delivery to the designated carrier in the United States.

Acceptance of a specified routing by Snakeguns, LLC does not constitute a guarantee of ship date, transit time or arrival date. Snakeguns, LLC will not be responsible for any cartage or storage charges at destination. Snakeguns, LLC's responsibility for exception-free delivery ceases when the carrier receives the products for shipment in good condition. Claims for loss or damage occurring during shipment must be reported directly to the carrier by the Buyer. Snakeguns, LLC's willingness to assist in claims against a carrier does not indicate liability for such claim or replacement product.

Battery Charger Warranty

Please refer to the warranty of the battery charger's manufacturer.

Snakeguns, LLC.
9903 E 54th St
Tulsa, OK 74146
www.snakeguns.com

RG-0048
Rev B

Snakeguns, LLC. has a policy of continuous product improvement. Please visit snakeguns.com to confirm current design specifications.