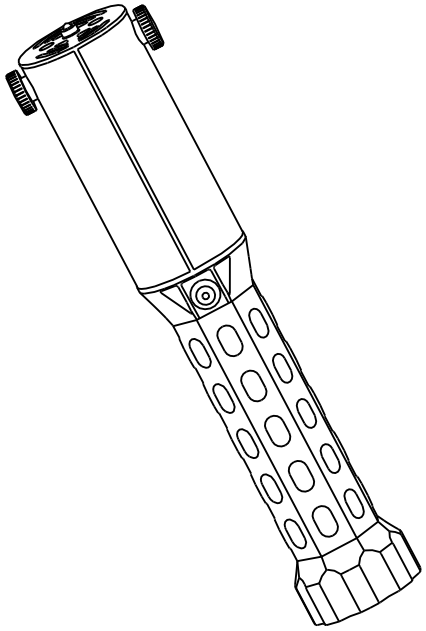
OMEGA MECHANIX™
ENGINEERED TO LAST

HR8000

HOT ROD

Specializing in Induction Heating Systems for the Automotive Aftermarket

User Manual



2014/01A

SHINN FU EUROPE B.V.
Roosendaal - The Netherlands
http://www.sfeu.nl e-mail : sales@sfeu.nl

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(GB) **DECLARATION OF CONFORMITY**

According to the EC Machinery Directive, the undersigned, authorized by Shinn Fu Europe B.V., Roosendaal, the Netherlands, hereby declares under our sole responsibility that the models listed below and its variant, the under types to which this declaration relates, if used and maintained in accordance with the instructions for use and the codes of good practice, comply with the essential health and safety requirements of the EC Machinery Directive.

For and on behalf of Shinn Fu Europe B.V.

(D) **ÜBEREINSTIMMUNGSERKLÄRUNG**

Gemäß der EG Maschine Richtlinie, bescheinigt Unterzeichneter, Bevollmächtigter von Shinn Fu Europe B.V., Roosendaal, Niederlande, hiermit unter unserer exklusiven Verantwortlichkeit, daß der Modelle verzeichneten unten und seine Variante Artikel für welche diese Erklärung gültig ist, vorausgesetzt daß der Richtsatz verwendet und betreut wird nach den Gebrauchsanweisungen, den notwendigen Gesundheits und Sicherheitsvorschriften der EG Maschine Richlinie entspricht

Für und im Namen von Shinn Fu Europe B.V.

(F) **DÉCLARATION DE CONFORMITÉ**

Conformément à la directive CE “Machine”, le soussigné, étant mandataire de Shinn Fu Europe B.V., Roosendaal, Pays-Bas, déclare à la responsabilité exclusive de la firme mentionnée ci-dessus que les modèles ont énuméré ci-dessous et sa variante proches pour lesquels vaut cette déclaration, répondent aux exigences de sécurité et de santé de la directive CE “Machine”, à condition qu’ils soient employés et soignés conformément au mode d’emploi.

Pour et au nom de Shinn Fu Europe B.V.

(NL) **VERKLARING VAN OVEREENKOMST**

Overeenkomstig de EG machine richtlijn, verklaart ondergetekende, gemachtigde van Shinn Fu Europe B.V., Roosendaal, Nederland, hierbij onder onze exclusieve verantwoordelijkheid dat de modellen maakten hieronder van een lijst en zijn variant voor welke deze verklaring geldt, mits gebruikt en onderhouden volgens de gebruiksaanwijzing, voldoet aan de noodzakelijke gezondheids en veiligheidseisen van de EG machine richtlijn.

Voor en namens Shinn Fu Europe B.V.

(ES) **DECLARCIÓN DE CONFORMIDAD**

En acordancia con la Directiva de Máquinaria, el abajo firmante, autorizado por Shinn Fu Europe B.V., Roosendaal, the Netherlands, aquí y ahora declara bajo su entera responsabilidad que gato los modelos enumerados abajo y su variante, a los cuales esta declaración también hace referencia, si se utiliza y se mantiene en acordancia con las a los instrucciones de uso y los códigos de buenas prácticas, cumplen los requerimientos esenciales de seguridad e higiene de la Directiva anterior.

Por y en nombre de Shinn Fu Europe B.V.

(IT) **DICHIARAZIONE DI CONFORMITA’**

In accordo con quanto stabilito dalla Norma Europea, il sottoscritto autorizzato dalla Shinn Fu Europe B.V., Roosendaal, Nederland, dichiara sotto la sua esclusiva responsabilità che il sollevatore idraulico e i modelli hanno elencato qui sotto e la relativa variante, se usati secondo i criteri e le avvertenze riportati nel manuale di uso e manutenzione sono conformi ai requisiti essenziali per la salute e la sicurezza

richiesti dalla Direttiva Macchine CE.

CE

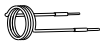
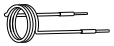
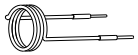
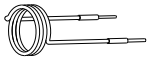
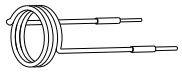
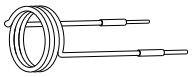
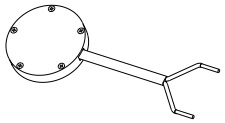
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Directive 2006/95/EC
EN 60519-1:2011 EN 60519-3:2005
EN 60335-2-45/A2:2012 EN 60335-2-9/A13:2010
EN 62233:2008 EN 62471:2008 EN 60335-1:2012

SHINN FU EUROPE B.V.
Roosendaal - The Netherlands
http://www.sfeu.nl e-mail : sales@sfeu.nl

Jesse Chung / Managing Director
1 December 2013

XIV. CONSUMABLE PARTS

1		1/2 " tube coil	HRT8013
2		3/4 " tube coil	HRT8019
3		7/8 " tube coil	HRT8023
4		1 " tube coil	HRT8026
5		1 $\frac{1}{4}$ " tube coil	HRT8032
6		1 $\frac{1}{2}$ " tube coil	HRT8038
7		1 $\frac{3}{4}$ " tube coil	HRT8045
8		Bearing coil 1000mm	HRB8100
9		Flexible coil 600mm	HRF8060
10		Round pad Ø75mm	HRR8075

You can buy above consumable parts from your local distributor.

----------2012.1 Version

Disclaimer:

Each page has been carefully checked for errors. Despite these efforts towards accuracy, the possibility of errors cannot be excluded. The manufacturer assumes no liability for any typing or printing errors in the catalogue. It also reserves the right to make any alterations or modifications deemed necessary at any time, without altering or interfering with the basic functions of the apparatus.

FOREWORD

Thank you for using our products. To get the best of this unit, please read carefully this manual before using.

- It is a kind of induction heating system for the automotive after market.
- It uses high frequency magnetic fields to heat up metal objects. Bolts, Bearings, Pulleys etc.
- It is flameless heat, ideal for plastic panel trim removal.

I. SAFETY GUIDELINES

A. General Work Area Safety Instructions



- **Read and understand all instructions.** Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.



- **Keep bystanders, children, visitors and animals away while operating the HOT ROD.** These beings may create distractions that cause you to lose control of the HOT ROD.
- **Keep your work area clean and well illuminated.** Cluttered and dark areas invite accidents.
- **Work outdoors, if there is no danger of rain, water or moisture.** If this is not possible, keep the inside work area well ventilated and dry. Be sure that ventilation fans are moving air from the inside to the outside.
- **Keep a fully charged fire extinguisher at hand at all times when using the HOT ROD.**

B. Personal Safety Instructions







- **Do not operate the HOT ROD, and stay at least three feet away from an operating HOT ROD , if you have a cardiac pacemaker or any other kind of electronic or metal surgical implant.** Although the magnetic fields emanating from the tools travel only a few inches, they pose a dangerous risk to the proper operation of all implanted medical electronic devices in the user and any bystanders. Thus, it is necessary that people with electronic or metallic medical implants do NOT use the HOT ROD or come within three feet of it when it is in use in case an accident should occur and the tool in use is inadvertently and unexpectedly brought near the person with the electronic or metallic medical implants.





- **Do not wear clothing that is made with metallic pocket rivets, waist band buttons, pocket buttons, and zippers when operating the HOT ROD.** The HOT ROD can heat such metallic items very quickly and cause serious burns or even ignite clothing.
- **Remove all loose coins, metallic tokens, keys, chains, pocket knives, miniature tools, or any other metallic object in or on your clothing before operating the HOT ROD.** Do not replace these items until you are finished using the HOT ROD. The HOT ROD can heat these metallic objects very quickly and cause serious burns or even ignite clothing.



- **Do not operate the HOT ROD while wearing any metallic items such as jewelry, rings, watches, chains, identification tags, religious medals, belt buckles, body piercing hardware, etc.** The HOT ROD can heat these metallic objects very quickly and cause serious burns or even ignite clothing.

magnetic properties produces magnetism, an electric charge, or an electromotive force in a neighboring body without contact.

29. **Inductor:** A coil used to introduce inductance into a ferrous work piece. (Inductor) A registered brand name of the only patented induction heating system for the automotive aftermarket.
30. **Main Unit:** A device that converts direct current into alternating current.
31. **Kilowatt:** Unit of power, equal to 1000 watts. Abbreviation: kW kw.
32. **Ohm:** The SI unit of electrical resistance, defined to be the electrical resistance between two points of a conductor when a constant potential difference applied between these points produces in this conductor a current of one ampere. The resistance in ohms is numerically equal to the magnitude of the potential difference. Symbol: Ω.
33. **Resistance:** A property of a conductor by virtue of which the passage of current is opposed, causing electric energy to be transformed into heat.
34. **Rosebud:** A registered product name inductor used for annealing, warming of frame rail for straightening, etc.
35. **Temper:** The degree of hardness and strength imparted to a metal, as by quenching, heat treatment, or cold working, the operation of tempering.
36. **Volt:** The SI unit of potential difference and electromotive force, formally defined to be the difference of electric potential between two points of a conductor carrying a constant current of one ampere, when the power dissipated between these points is equal to one watt. Abbreviation: V.
37. **Voltage:** Electromotive force or potential difference expressed in volts.
38. **Watt:** The SI unit of power, equivalent to one joule per second and equal to the power in a circuit in which a current of one ampere flows across a potential difference of one volt. Abbreviation: W, w.

capacitance of a capacitor between the plates of which there appears a potential difference of one volt when it is charged by a quantity of electricity equal to one coulomb. Symbol: F.

15. **Fast Off:** A registered product name inductor used for removal of body side moldings, vinyl graphics, and other adhesive bonded parts to automobiles.
16. **Ferrite:** Chemistry a compound, as $NaFeO_2$, formed when ferric oxide is combined with a more basic metallic oxide. Metallurgy the pure iron constituent of ferrous metals, as distinguished from the iron carbides.
17. **Ferrous:** Of or containing iron.
18. **Flux:** The lines of force of an electric or magnetic field.
19. **Frequency:** The number of cycles or completed alternations per unit time of a wave or oscillation. Symbol: F; Abbreviation: freq.
20. **G.F.I.**: See Ground Fault Interrupter.
21. **Glass Blaster:** A registered product name inductor used for removal of automotive glass and body panels. Can be an attachment or a single attachment hardwired unit.
22. **Ground Fault Interrupter:** A circuit breaker that senses currents caused by ground faults and rapidly shuts off power before damage can happen to generating equipment.
23. **Henry:** The SI unit of inductance, formally defined to be the inductance of a closed circuit in which an electromotive force of one volt is produced when the electric current in the circuit varies uniformly at a rate of one ampere per second. Abbreviation: H.
24. **Hertz**: The SI unit of frequency, equal to one cycle per second. Abbreviation: Hz.
25. **Hysteresis:** The delay in response exhibited by a body in reacting to changes in the forces, esp. magnetic forces, affecting it.
26. **HF:** (High Frequency) the range of frequencies in the radio spectrum between 3 and 30 megahertz.
27. **Inductance:** That property of a circuit by which a change in current induces, by electromagnetic induction, an electromotive force. Symbol: L.
28. **Induction:** The process by which a body having electric or



- **Do not operate the HOT ROD while under the influence of drugs, alcohol or any medication.**
- **Do not use the HOT ROD within 4 inches of any airbag component.** The heat created from the HOT ROD can ignite the air bag propellant, causing it to explode without warning. Refer to the vehicles service manual for precise airbag location before operating.
- **Do not overreach, keep proper footing and balance at all times.** Proper footing and balance enables better control of the HOT ROD in unexpected situations.



- **Always wear safety goggles when using the HOT ROD.**



- **Fumes and smoke from hot/burning adhesives are toxic. Wear a dual filter (dust and fume) respirator mask which has been approved by government department.** These masks and replaceable filters are readily available at major hardware stores. Be sure the mask fits. Beards and facial hair may keep masks from sealing properly. Change filters often. DISPOSABLE PAPER MASKS ARE NOT ADEQUATE.





- **Wear heat-resistant gloves when using the HOT ROD.** The HOT ROD heats metal very quickly. You can burn your hands and fingers when trying to remove parts from hot metal surfaces.

C. Electrical Safety Instructions



- **Do not use the HOT ROD in the rain, moisture or immerse in water.** Exposing the HOT ROD to water or other liquids may cause an electrical shock hazard.
- **Disconnect the HOT ROD power supply cord from the outlet before changing any of the applicators.**
- **Do not abuse the electrical cord. Never use the cord to**

carry the HOT ROD. Keep the cord away from heat, oil, sharp edges and/or moving parts. Do not use the HOT ROD if the cord is damaged. Cords cannot be repaired, only replaced. Damaged cords create electric shock hazards.



- **Unplug the HOT ROD from the power supply outlet or cord when not in use.**



Extension Cords:

If an extension cord is necessary, only the following two cord lengths are authorized for use with the HOT ROD:

25 foot, 14-AWG;

50 foot, 12-AWG.

- Use only one extension cord at any one time.
- Do not connect two or more extension cords in series with each other.
- Do not use any other extension cords except those specified above. Unwrap extension cords—tightly wrapped extension cords can overheat and cause fires.

D. Fire Hazard Safety Instructions



- **Do not attempt to heat aerosol cans, paint cans, or any pressurized containers used for storing fuels, compressed gases, and liquids.** The heat generated by the HOT ROD can cause these containers to explode and their contents to ignite.
- **Do not use any heating coil if insulation has been breached**. If insulation has been breached it will cause sparking when contacting with a vehicle. This will be a fire hazard especially when working on or near gas lines and/or gas tanks.

XIII. DEFINITIONS

1. **Anneal:** To heat metals to remove or prevent internal stress.
2. **Ampere:** The base SI unit of electrical current, equivalent to one coulomb per second. Abbreviation: A, amp.
3. **AWG:** Abbreviation for American Wire Gauge.
4. **Capacitance:** The property of being able to collect a charge of electricity. Symbol: C.
5. **Celsius:** Or centigrade, of or relating to a temperature scale that registers the freezing point of water as 0° and the boiling point as 100° under normal atmospheric pressure.
6. **Circuit:** Also called electric circuit. the complete path of an electric current, including the generating apparatus, intervening resistors, or capacitors.
7. **Concentrator:** A registered product name inductor used for removal of hail dents, frozen nuts, and other frozen or rusted hardware from cars.
8. **Conductivity:** Also called specific conductance. Electricity. a measure of the ability of a given substance to conduct electric current, equal to the reciprocal of the resistance of the substance. Symbol: σ.
9. **Current:** The time rate of flow of electric charge, in the direction that a positive moving charge would take and having magnitude equal to the quantity of charge per unit time: measured in amperes.
10. **Degree:** A unit of measure, as of temperature or pressure.
11. **Eddy Current:** An electric current in a conducting material that results from induction by a moving or varying magnetic field.
12. **Electromagnetic Interference:** Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the effective performance of electronics/electrical equipment. abbreviation E.M.I.
13. **Fahrenheit:** Of or relating to a temperature scale that registers the freezing point of water as 32° and the boiling point as 212° at one atmosphere of pressure.
14. **Farad:** The SI unit of capacitance, formally defined to be the

XII. WARRANTIES AND/OR REPAIRS

Limited Warranty

Your local supplier warrants the inductor HOT ROD and any parts thereof, to be free from defects in materials and workmanship for one year from the date of first purchase, excluding all work coils, when operated in accordance with the Operating and Safety Instructions Manual. This warranty is extended to the original purchaser, when proof of purchase is provided. Your local supplier will cover ground transportation costs when returning a unit repaired under warranty. This warranty covers only the cost of parts and labor to restore the product to proper operating condition. Transportation and incidental costs associated with warranty repairs are not reimbursable under this warranty. Warranty service is available only through your local supplier . This warranty does not cover defects resulting from misuse, abuse, accidents, normal wear, tampering, negligence, alteration, modification, or repair by anyone other than the manufacture. This express warranty is given in lieu of any other warranty either expressed or implied, including warranties of merchantability and fitness for a particular use. Your local supplier assumes no responsibility for indirect, incidental or consequential damages. Some states do not allow the exclusion or limitations of incidental or consequential damages or limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state. Warranty is not valid unless the warranty card is returned within 30 days of the date of purchase. No unit will be warranted without proof of purchase. Shipping will be at the consumer's own expense. Return shipping will be at the factory's expense for units repaired under warranty. Return shipping will be via ground, unless the consumer wishes to pay for faster service. Your local supplier is not responsible for lost, stolen, or damaged unit(s) due to shipping. Warranty is non-transferable. When returning, all work coils and accessories must be returned with the unit to qualify it for warranty repair. Contact your local supplier for return authorization prior to shipment.

E. Tool Use Safety Instructions



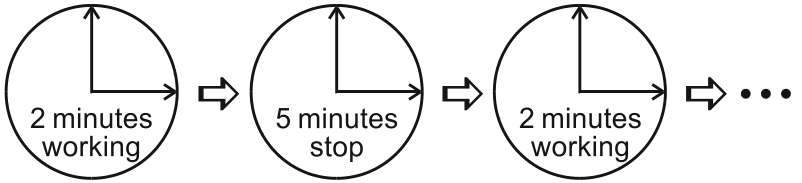
- **Do not leave the HOT ROD unattended when it is ON.**
- **Do not attempt to repair or service the HOT ROD.** There are no user-serviceable parts except for replacing the coil attachments.



- **Do not twist or bend electrical cord sharply, or damage to internal wiring may result.**



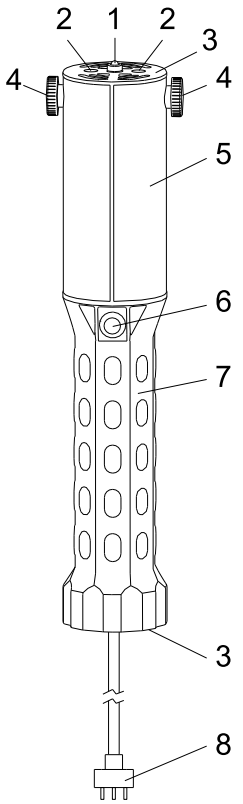
- **Make sure that the Power Unit has a sufficient supply of air for cooling.** Make sure that the vents of the HOT ROD Power Unit are clean and free of dust and debris so that the Power Unit has an unimpeded flow of cooling air.
- **Before plugging in the HOT ROD, make sure that the outlet voltage supplied is compatible with the voltage marked on the nameplate within 10%.** An outlet voltage incompatible with that specified on the nameplate can result in serious hazards and damage to the HOT ROD.
- **Do not use the HOT ROD longer than the duty cycle.** The circuit board has an overheat protection device for protection, however the electrodes do not have overheat protection. **Duty cycle: two minutes on five minutes off.**



Duty cycle

- When overheat protection, the L.E.D light change to yellow from white.

II. MAIN UNIT AND ACCESSORIES

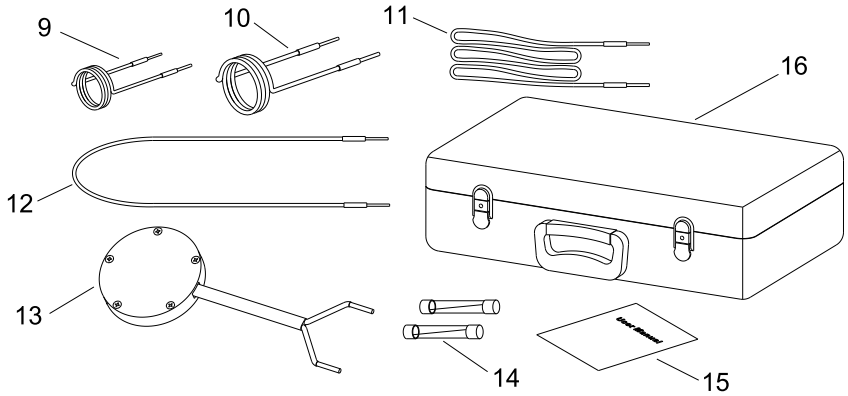


Main Unit:

1. L.E.D. Light (two colours, white for working and yellow for over heating)
2. Electrodes (top)
3. Vent (end)
4. Coil Lock Screw
5. Sticker
6. Power Switch
7. Main Unit
8. Cord & Plug

Standard Accessories:

9. ¾″ Tube Coil
10. 1¼″ Tube Coil
11. Bearing Coil
12. Flexible Coil
13. Round Coil
14. Fuse
15. User Manual
16. Package Case



XI. CLEANING INSTRUCTIONS

A. Proper Cleaning Care

1. Make sure unit is off and unplugged. Use a dry, clean, non-abrasive cloth or paper towel to remove grease, oil, and other dirt from the Main Unit, tools, and electrical cords before returning them to the storage case.
2. For grease, oil and dirt that is more difficult to remove use generally available nonvolatile automotive interior cleaning products. Allow all components to dry completely before using the HOT ROD.

B. Improper Cleaning Care

1. DO NOT immerse any components of the unit in water or a cleaning solution.
2. DO NOT spray the unit with a stream of water from a hose, or wash any parts under a stream of water from a faucet, hydrant or shower.
3. DO NOT clean any components with volatile organic compounds such as gasoline, benzene, kerosene, varnish removers, fuel oil, methyl ethyl ketone (MEK), brake part cleaners, plastic adhesive solvents, paint remover and thinners, etc. These substances are fire hazards and will harden or dissolve the polymer materials used in the HOT ROD components.
4. DO NOT use torches, space heaters, heat guns, gas ovens or microwave, etc. To dry the components of the HOT ROD after cleaning.

IX. TROUBLE SHOOTING

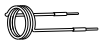
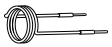
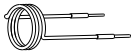
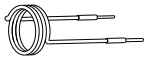
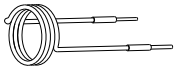
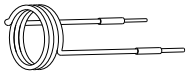
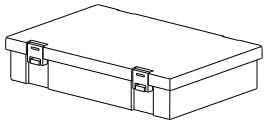
1. The HOT ROD main unit is de signed to stop running if overheated, however, the electrodes DO NOT have an overheat shutoff. This is why there is a duty cycle with the HOT ROD. Two minutes on five minutes off. If the unit stops suddenly and the L.E.D light colour change to yellow from white: check to insure unit is still plugged into a functioning AC power outlet. Also be sure if using an extension cord that there are no cuts in the cord. Allow the unit to cool off for at least 15 minutes and then restart. If problems contact your local supplier.
2. If there is a lack of power output, this may be from using an improper extension cord or a damaged attachment. The proper gauge and length cord is 25 ft., 14-AWG or 50-ft, 12-AWG. Do not use more than one extension cord at once.
3. For other problems contact your local supplier.

X. DISASSEMBLY AND STORAGE

Turn unit off and allow the unit and all working coils to cool for at least 30 minutes before disassembly, cleaning or storage. Handling the unit or parts before they have cooled may result in injury; storage of unit while still hot may result in damage to equipment or pose a fire hazard.

1. When you are finished working, turn the power OFF by releasing the power switch and make sure that the internal fan stops.
2. Disconnect the plug from the service outlet or extension cord.
3. Place unit and coils into foam cutouts in storage case.

Optional Coil Set: HRK8007 (Including all below):

16		1/2 " tube coil	HRT8013
9		3/4 " tube coil	HRT8019
17		7/8 " tube coil	HRT8023
18		1 " tube coil	HRT8026
10		$1\frac{1}{4}$ " tube coil	HRT8032
19		$1\frac{1}{2}$ " tube coil	HRT8038
20		$1\frac{3}{4}$ " tube coil	HRT8045
21		Accessories box	

Input voltage and current show on the sticker of main unit.

III. PRINCIPLES OF OPERATION

The power cord, when connected to a GFI outlet, **(8)** insures a properly grounded AC power input connection. The **Main Unit (7)** steps up ordinary voltage indicated on sticker. A work coil, the **Tube Coil (9, 10)**, **Bearing Coil (11)**, **Flexible Coil (12)**, or **Round Coil (13)**, is inserted into the end of the **Electrodes (2)** and then secured into place with the **Coil Lock Screw (4)**. The coil then converts the current to a high frequency alternating magnetic field. This magnetic field crosses the metallic, conductive work surface (e.g., the frozen nut) and vibrates the electrons in the metal through the principle of electromagnetic induction. The kinetic energy of the moving electrons is dissipated as heat, which warms whatever metal is within the tool's working range.

The more easily magnetized a substance is, the greater the heat developed in it. That is why the HOT ROD heats ferrous metals and their alloys readily, but has no effect on glass, plastics, wood, cloth and other non-conductive materials. The **Power Switch (6)** is used to turn the Main Unit on and off. Push it in to turn on power to the unit. The unit will remain ON as long as pressure is applied to the switch. Remove pressure from the switch to turn the power OFF. Record the serial number from the **Serial Plate (back) (5)** on the Main Unit to the enclosed Warranty Card and mail.

IV. PREPARATION FOR OPERATION

- Read and understand all safety warnings and cautions in this manual before operating the HOT ROD.

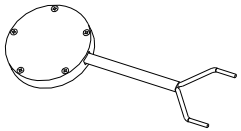
Generator & Main Unit Use

CAUTION

- The HOT ROD is designed to operate from rate voltage show in main unit, whithout suffering damage on voltages up to more 10%.

1. **Generator:** Some portable generators, particularly low-cost units producing 4 kW or less, are unregulated and can produce in excess of up to more 20% which will damage the unit and void the warranty. If you are in doubt concerning the electrical generator that will be supplying power to the HOT ROD, have a professional electrical contractor measure the generator voltage with a digital voltmeter. Measure the voltage with the generator engine warm and no load. Some generators, the voltage may be reduced by decreasing the engine speed.
2. **Main Unit:** DC to AC Main Unit operation; Use only 1.8 kW or larger sine wave Main Unit.

VIII. USING THE ROUND PAD

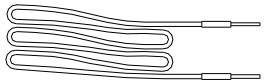


Function: The **Round Pad (13)** is used for removing stickers, decals, graphics, emblems, small body side moldings, and pin striping.

Removing Bonded on Parts

1. Perform the “Preparation for Operation” instructions.
2. Insert both Round Pad ends into the electrodes and tighten coil lock screws.
3. Push the power switch to activate the HOT ROD.
4. Apply the Round Pad to the end of the desired part to be removed for a couple seconds. Once you are able to peel the start of the part off, you will have an area you can pull on to keep outward pressures going. Re-apply the Round Pad to the part, working it down the part while keeping outward pressure until the part is completely removed.

VII. USING THE BEARING COIL

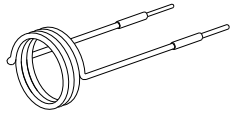


Function: The **Bearing Coil (11)** is used to free a race from an axle housing, frozen O_2 Sensors, remove ball joints, & tie-roc ends.

Expanding a Piece to Remove an Interlocking Part

1. Perform the “Preparation for Operation” instructions.
2. Insert one end of the Bearing Coil into one of the electrodes and tighten coil lock screw.
3. Wrap the coil at least 3 times around the work piece to be expanded.
   Tip: *The more coil winds you have the faster it will heat.*
4. Insert the other end into the remaining open electrode and tighten the coil lock screw.
5. Push the power switch to activate the HOT ROD.
6. Heat until expanded enough to remove the race.
7. Release the power switch and loosen both coil lock screws to remove the Bearing Coil.

V. USING THE TUBE COIL



Function: The **Tube Coils (9, 10)** is used to heat nuts, fasteners, caulking removal, frozen door hinges, exhaust manifold bolts, truck under bed bolts, Sensors (O_2) etc.



- The life of the Tube Coil can be extended by only heating objects enough to break the frozen rust bond. The insulation of the coil will eventually burn through when holding directly to hot nuts.

Loosening Corroded, Rusted and “Frozen” Nuts and Bolts ≤ 3/4.

1. Perform the “Preparation for Operation” instructions.
2. Push the power switch to activate the HOT ROD.
3. Bring the Tube Coil around the frozen nut, initially for only two seconds, back it away, and try to remove the nut with a wrench or socket. If it is still frozen, apply the Tube Coil for another two seconds, and then try the wrench again. There is usually no reason to heat a nut to a red-hot condition in order to free it from the corrosion holding it to the bolt.

VI. USING THE FLEXIBLE COIL



Function: The **Flexible Coil (12)** can be shaped to perform any of the previous coils jobs, custom part removal, and Hail/Soft dent removal.

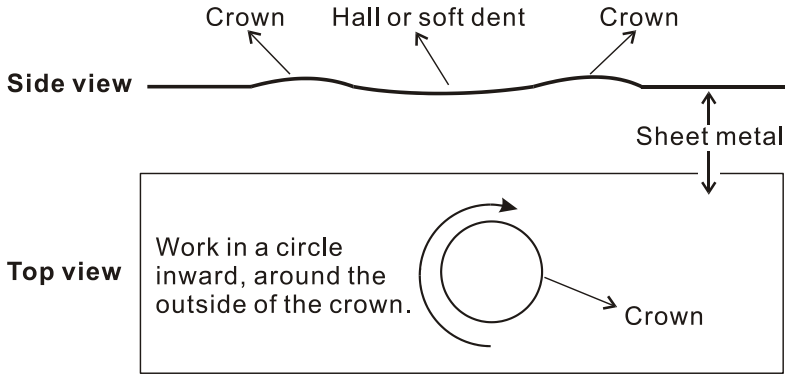
A. Loosening Corroded, Rusted and "Frozen" Nuts and Bolts >3/4"

1. Perform the "Preparation for Operation" instructions.
2. Configure the coil to the size nut by wrapping it around a socket piece for that nut.
   Tip: *The more coil winds you can get the faster it will heat.*
3. Insert both ends of the Flexible Coil into the electrodes and tighten coil lock screws.
4. Bring the Flexible Coil around the frozen nut, initially for only two seconds, back it away, and try to remove the nut with a wrench or socket. If it is still frozen, apply the Flexible Coil for another two seconds, and then try the wrench again. There is usually no reason to heat a nut to a red-hot condition in order to free it from the corrosion holding it to the bolt.

B. Heat Shrinking Hail / Soft Dents in Sheet Metal



1. Perform the "Preparation for Operation" instructions.
2. Configure the Coil to look like the diagram on the right.
3. Holding the Flexible Coil ½ to 1 inch above a dent, move it in a small circular motion and gradually bring it closer to the dent, but keeping it around the outside of the crown of the dent. As soon as the dent shrinks, back the Flexible Coil away quickly and cool the treated dent with a damp rag. If the dent sucks in you are heating the crown or not far enough around the outside of the crown. Repeat the procedure until removed completely.



Tip: *Once a puff of smoke releases from the dent immediately remove the Flexible Coil from the area. This is the point at which the paint will start to bubble. Also be careful on white and light colored finishes, these lighter paints tend to yellow sooner than darker colors.*

Trouble Shooting: If the dent doesn't seem to want to shrink, this may be because there is a crease in the metal or the metal has been stretched to far.