



IMPORTANT NOTE:

Please Read These Operating and Safety Instructions Before Using the BoltBuster™

OPERATING AND SAFETY INSTRUCTIONS

BOLT BUSTER™ HEAT INDUCTION TOOL



Simple instructions to Get Started with Bolt Buster™

Make sure BoltBuster™ is unplugged.

Attach both ends of the work coil you are using to the Aluminum Heat Sink with Black thumb screws. Make sure the thumb screws make an electrical/mechanical contact.

Form wire or position preformed work coil so it fits around the work piece. Note: the work coil does not need to touch the material to be heated. Work coil needs to be in the proximity (1/4 - 3/4 inch) or less and could come in contact but not necessary for it to effectively apply alternating magnetic eddy current

Plug Bolt Buster into a standard AC outlet that is properly grounded and protected by a GFI ground fault interrupter.

Read and understand all of the safety instructions on the following pages before using this device.

- 1. The work coils will fit over most nuts. Position coil over the nut Depress red button until nut is heated, then quickly use wrench to loosen.**
- 2. The Flex form coil can be used to form custom coils. Hand wind as you may and form three loops around the part to be heated.**
- 3. The litz wire rope may be wound around pipes, U joints or other large objects to apply working heat where required. Use the BoltBuster™ like you would a torch to loosen pipes, bearings etc. The more coils you wind the faster it will heat**

The Bolt Buster™ works best on ferrous iron containing metal such as steel but it will work on any metal that is a good electrical conductor, like aluminum, with less efficiency. The Bolt Buster uses a high frequency electro-magnetic pulse to induce positive and negative eddy current into the work piece and excite the ferrous molecules, which causes the work piece to heat up rapidly without the dangers of using conventional methods (torch, heat gun, solder iron, hot air gun, etc..)

You do not have to touch the work coil to the metal, only have it in proximity. Only apply as much induction heat, as you require in accomplishing your task, you do not need to have the part heat as high as 600F~1000F - it does not have to glow red hot to loosen it.

This will increase the life of your work coils, minimize safety hazards as severe burns can occur with extremely hot parts. Typical time to heat a ¾ “ steel nut/bolt to 400F is less 60 seconds

PRINCIPLES of OPERATION and DESIGN

The Bolt Buster™ is a high frequency power inverter that takes voltage and fluctuates the electromagnet properties from positive and negative around 50 – 70 Khz. It heats metallic objects by subjecting them to a rapidly fluctuating magnetic field, which creates eddy currents of electrons in the metal. The kinetic energy of the moving electrons is dissipated as heat. The more easily magnetized a substance is, the greater the efficiency of heat transfer.

That is why the Bolt Buster™ heats ferrous metals and their alloys readily, but has no effect on glass, plastics, wood, cloth and other non-conductive materials. The high frequency alternating magnetic field created in the Power Unit Inverter is conducted through an electrical cord or magnet wire to one of the three coil tools. In each case, the effective range at which the tool will heat metal is 1-1/2 inches or less.

Use the BoltBuster™ as you would a torch to heat metal parts in order to free frozen parts, pipes or bearings etc.

The torchless inductive heat can be used to minimize damage to non-metal items such as silicon boots and wire insulation, allowing you to work in tight mechanical areas. The coils will only directly heat metal objects.

Safety Rules for Using the Bolt Buster Flameless Heat System

General Work Area Safety Rules

WARNING!



Please comply with all instructions and read carefully In order to avoid hazards such as electric shock, fire, and potentially serious injury

WARNING!



Observe precaution and avoid distractions while operating around children, animals and people in order to maintain total control of the BoltBuster™ tool

Please use in well lit and clutter-free environment. Objects heated may fall after removal. A work area clean and well-lit will prevent accidents

WARNING!



Keep away from wet environments. Electrical apparatus can short circuit when exposed to moisture. Only use outdoors - when it's not raining and dry. Do not block air vents as the unit must have flowing air throughout the unit to cool internal parts

CAUTION!

Maintain a fully charged fire extinguisher in the work area in order to minimize fire hazard.

Personal Safety Rules

DANGER!



Electromagnetic emissions in effect. Do not operate and stay 3 feet away if you have a pacemaker or internal electrical cardiac device implanted or if someone close to you has one as well. The Bolt Buster™ will interfere with the operation of such implanted electronic medical devices, and can cause dangerous heating of any metal items in your body.

WARNING!

The bolt buster can heat metal objects within seconds. Therefore do not wear any metallic items such as jewelry, rings, watches, chains, etc. Bolt buster can cause severe burns and even ignite clothing



Personal Safety Rules (continued)

WARNING!

Metal objects continued. Do not wear or have on your clothing: coins, metallic tokens, keys, chains, pocketknives, miniature tools, clothing that is made with metallic pocket rivets, pocket buttons, and zippers when operating the Bolt Buster™. The Bolt Buster™ can heat these items rapidly, resulting in serious burns and/or ignition of clothing.



WARNING!

Do not use while under the influence of any medication, drugs or alcohol that may cause drowsiness or impair motor function and central nervous system.



WARNING!

Wear safety glasses when using the Bolt Buster™.



WARNING!

Wear an OSHA- approved or NIOSH approved filter respirator mask, disposable respiration masks not adequate. Avoid exposure to fumes and smoke from hot/burning adhesives as these fumes are toxic.



WARNING!

Wear protective heat resistant gloves or use pliers with heat insulating handles when using the Bolt Buster™. Avoid direct contact between skin and hot metal surfaces.



Electrical Safety Rules

DANGER!

Exposing the Bolt Buster™ to liquids will cause an electrical shock hazard. Do not expose to Rain, Water, or Moisture. Unit is NOT waterproof



DANGER!

Use a properly installed Ground Fault Interrupter (GFI) plug. Consult a licensed electrician to determine proper grounding of any outlet you use with the Bolt Buster™ if you have any questions about proper grounding.



DANGER!

Do not abuse the electrical cords. Do not expose the cords to heat, oil, or moving parts. If the cord is damaged do not use unit. Contact Bolt Buster to replace damaged cords to reduce the risk of electric shock hazards.



WARNING!

Disconnect power to the Bolt Buster™ before changing any of the work coil tools.



WARNING!



EXTENSION CORDS:

If an extension cord is needed, use only the following specifications:

25 foot, 14-AWG;

50-ft, 12-AWG.

- Do not connect two or more extension cords together.
- Use only one extension cord meeting the abuse specifications.
- Unwrap extension cords fully to avoid to avoid overheating which can cause a fire

Fire Hazard Safety Rules

DANGER!



Remove from the work area all pressurized aerosol cans, and flammable liquid containers. The Bolt Buster™ may heat and ignite contents. When using the Bolt Buster™ to help drop gas or fuel tanks, make sure all gasoline and fuels or any gasoline or fuel vapors are removed from the tank and that the work area is well ventilated!

WARNING!



The Bolt Buster is a source of ignition to any flammable or explosive materials. Although the Bolt Buster will not directly heat non-metallic materials, if these are covering or adjacent to metal objects being heated, they may melt and or ignite from radiated or conducted heat or by hot air convection. Use extreme caution at all times when using this product around combustible or explosive materials.

CAUTION!



Do not obstruct the cooling airflow to the Inverter Power Unit of the Bolt Buster™. Such items as rags or paper may block the air holes and result in damage or fire.

Tool Use Safety Rules

WARNING!



Do not leave the Bolt Buster™ unattended or bypass the ON switch. If the Bolt Buster™ does not turn off automatically when the push button is released, unplug the unit from the AC outlet and DO NOT USE until the unit is returned from repair.

WARNING!



Do not operate the Bolt Buster™ with blocked air holes. Make sure that the perforated plastic end caps of the Bolt Buster™ are clean and free of dust and debris so that fan can provide sufficient cooling air.

CAUTION!

Do not attempt to repair the internal electronic circuits of the Bolt Buster™ yourself. Only preventive maintenance needed is to keep replace work coil when protective sleeve is fraid. **Any attempt to repair or modify the unit in any way, voids all warranties.**

CAUTION!

Do not separate the coil attachment cords or wire connectors from the Bolt Buster™ coil connector by yanking or pulling on the cords or wires to disengage the connectors. If the Bolt Buster™ is operating when the connectors are separated, **NON-WARRANTABLE** damage to the internal electronics of the Bolt Buster™ will occur.

CAUTION!

Do not sharply bend or twist electric cords to avoid damaging the internal wiring. Do not carry, swing or suspend the unit from its electrical cord or any of the tool wires! This will result in NON-WARRANTABLE damage.

CAUTION!

Operating duty cycle of the Bolt Buster™ is two minutes on, 4 minutes off. Do not exceed a 33% duty cycle rate or the unit may suffer NON-WARRANTABLE damage.

PRINCIPLES of OPERATION and DESIGN

The Bolt Buster™ is a power inverter that creates an electromagnetic field and then fluctuates it at high frequency (50Khz - 70Khz). This rapidly changing magnetic field from positive to negative creates eddy currents in the metal. The kinetic energy of the moving electrons is dissipated as heat. The more easily magnetized a substance is, the greater the heat developed in it. That is why the Bolt Buster™ heats ferrous metals and their alloys readily, but has no effect on glass, plastics, wood, cloth and other non-conductive materials. The high frequency alternating current created in the Power Unit Inverter is conducted through an electrical cord or magnet wire to one of the three coil tools. In each case, the effective range at which the tool will heat metal is 1-1/2 inches or less.



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 Bolt Buster™ 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 implant.

USING THE COIL TOOLS

Attach work coil by loosening the contact screws inserted into the provided holes in front of the power inverter unit with a CCW turn. Insert one wire contact and tighten the contact screw down on the exposed metal contact. In the same manner, connect the other side of the coil. Check that both sides are tight and secure by *hand tightening* the thumb screws in a *clockwise* direction. *Do not use extreme torque when tightening the screws.*

CAUTION! *High strength or high carbon/alloy steels may be softened resulting in loss of mechanical strength when heated to a specific critical temperature. Consult the vehicle manufacturer recommendations for safe temperatures.*

A. Loosening Corroded, Rusted and “Frozen” Nuts and Bolts

Bring the work coil to the frozen nut, keeping a minimum distance between the coil inside diameter and the nut at all times. Initially, bring the coil close to the nut 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 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. Removing or sweating pipes or other cylindrical components

Attach one end of the Litz rope to the power inverter unit. Use the free end to wrap around the pipe or work piece. Connect the free end to check that both sides of the formed coil are connected. Apply power by depressing the red push button. Applying

sufficient force and heat to free the parts or insert part. Release push button. Caution: The metal surfaces WILL BE HOT, USE GLOVES to handle them.

C. Removing Larger nuts and bolts with Custom flex formed coil.

Form a coil around a mandrel like a wood dowel to the dimensions you need. Extract the coil from the mandrel. You may now use the new coil like the preformed coil in step A.

Remember that the Bolt Buster™ has 2 minutes on, 4 minutes off duty cycle. If this practice is not observed, serious, non-warrantable damage to the coils and the Bolt Buster™ can result.

WARRANTIES AND/OR REPAIRS

LIMITED WARRANTY

Bolt Buster Inc. provides a limited warranty that it is free from defects in components and workmanship for a period of 1 year from date of sale. This warranty does not include obvious mis-handling or abuse such as defects resulting from negligence, accidents, normal wear, alteration, modification, tampering, or repair by anyone other than an authorized service center. Proof of purchase is needed. Please send unit freight prepaid, we will either, replace, repair or provide a factory certified refurbished unit in as a replacement.

Transportation and incidental costs associated with warranty repairs are not reimbursable under this warranty.

Bolt Buster Inc. makes no warrant and assumes no responsibility for indirect, incidental or consequential damages.

No unit will be warranted without proof of purchase.

Return shipping will be sent prepaid ground service at factory's expense for units repaired under warranty. Return shipping will be at the normal rates BoltBuster Inc. is not responsible for lost, stolen, or damaged unit(s) due to shipping. Warranty is non-transferable.