

# START-IT® Jump-Start System



## OWNER'S MANUAL & WARRANTY INFORMATION

THIS MANUAL CONTAINS IMPORTANT INFORMATION REGARDING SAFETY, OPERATION, MAINTENANCE AND STORAGE OF THIS PRODUCT. BEFORE USE, READ AND UNDERSTAND ALL CAUTIONS, WARNINGS, INSTRUCTIONS AND PRODUCT LABELS, PLUS YOUR VEHICLE'S BATTERY MANUFACTURER GUIDELINES. FAILURE TO DO SO COULD RESULT IN POSSIBLE INJURY OR PROPERTY DAMAGE.

**4140 SW 28TH WAY, FT. LAUDERDALE, FL 33312**  
**TEL 954-584-4446 • FAX 954-584-5556**  
**TOLL-FREE: (866) 584-5504**

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## 10. **WARRANTY**

### **VECTOR 2 YEAR LIMITED WARRANTY PROGRAM**

This limited warranty program is the only one that applies to this product, and it sets forth all the responsibilities of Vector Manufacturing, Ltd., regarding this product. There is no other warranty other than described herein.

This Vector Manufacturing, Ltd. product is warranted, to the original purchaser only, to be free of defects in materials and workmanship for two years from the date of purchase without additional charge. The warranty does not extend to subsequent purchasers or users. Vector Manufacturing, Ltd. will not be responsible for any amount of damage in excess of the retail purchase price of the product under any circumstances. Incidental and consequential damages are specifically excluded from coverage under this warranty.

This product is not intended for commercial use. This warranty does not apply to accessories or damage to units from misuse or incorrect installation. Misuse includes wiring or connecting to improper polarity power sources.

**RETURN/REPAIR POLICY:** Defective products, other than accessories, may be returned postage prepaid to Vector Manufacturing. Any defective product, other than accessories, that is returned to Vector Manufacturing within 30 days of the date of purchase will be replaced free of charge. If such a product is returned more than 30 days but less than two years from the purchase date, Vector Manufacturing will repair the unit or, at its option, replace it free of charge.

If the unit is repaired, new or reconditioned replacement parts may be used, at Vector Manufacturing's option. A unit may be replaced with a new or reconditioned unit of the same or comparable design. The repaired or replaced unit will then be warranted under the terms of the remainder of the warranty period. The customer is responsible for the shipping charges on all returned items. During the warranty period, Vector Manufacturing, Ltd. will be responsible for the return shipping charges.

**LIMITATIONS:** This warranty does not cover accessories, bulbs, fuses and batteries, defects resulting from normal wear and tear (including chips, scratches, abrasions, discoloration or fading due to usage or exposure to sunlight), accidents, damage during shipping to our service facility, alterations, unauthorized use or repair, neglect, misuse, abuse, failure to follow instructions for care and maintenance, fire, flood and acts of God.

If your problem is not covered by this warranty, call our Technical Support Department at **(954) 584-4446** or toll-free **(866) 584-5504** for general repair information and charges if applicable.

**STATE LAW RIGHTS:** This warranty gives you specific legal rights. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the exclusions or imitations stated herein may not apply. This warranty gives the purchaser specific legal rights. Other rights, which vary from state to state, may apply.

**TO REQUEST WARRANTY SERVICE FOR THIS PRODUCT:** Contact Vector Manufacturing Technical Support by telephone, fax or mail. We suggest that you keep the original packaging in case you need to ship the unit. When returning a product, include your name, address, phone number, dated sales receipt (or copy), and a description of the reason for return and product serial number. After replacing the unit, we will attempt to return it to you within four weeks.

**WARRANTY ACTIVATION:** Please complete Warranty Activation Card and mail to Vector Manufacturing. Enter model number and product type. All Vector Manufacturing, Ltd. **products must be registered within 10 days of purchase.** To activate this warranty, mail completed form, a copy of the original sales receipt to:

**VECTOR MANUFACTURING, Ltd.**

**4140 S.W. 28th Way, Fort Lauderdale, Florida 33312**

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## **WARNINGS**

**JUMPSTART PROCEDURES SHOULD ONLY BE PERFORMED IN A SAFE, DRY, WELL VENTILATED AREA OR COMPARTMENT. ANY HATCH OR ENGINE COMPARTMENT SHOULD BE OPEN AND OR WELL VENTILATED TO REDUCE RISK OF FIRE, ELECTRIC SHOCK, EXPLOSION OR INJURY.**

- When working with lead acid batteries, always make sure immediate assistance is available in case of accident or emergency.
- Always use protective eyewear when using this product: contact with battery acid may cause blindness and/or severe burns. be aware of first aid procedures in case of accidental contact with battery acid.
- There is a risk of explosive gases being released when lead acid batteries are being charged or discharged. failure to follow instructions may cause property damage, explosive hazard and/or personal injury.
- When charging unit from a 120 volt AC electrical outlet in any wet or damp area, make sure that the outlet used is protected by a ground fault circuit interrupt (GFCI) switch.
- When charging the unit near water, do not allow the electrical cords and outlets to get wet or come near water-electrical shock could result!
- Always store battery clamps in built-in holsters when not in use. never touch battery clamps together-this can cause dangerous sparks, power arcing and/or explosion.
- When using this unit in proximity to the vessel's or vehicle's battery and engine, stand the unit on AC flat, stable surface, and be sure to keep all clamps, cords, clothing and body parts away from moving vehicle components.
- Do not wear vinyl clothing when jumpstarting a vessel or vehicle-friction can cause dangerous static electricity sparks. remove all jewelry or metal objects that could cause short circuits or react with battery acid.
- Always disconnect the negative (black) jumper cable first: followed by the positive (red) jumper cable.
- Never allow red and black clamps to touch each other or another common metal conductor-this could cause damage to the unit and/or create sparking/explosion hazard. always store battery clamps in built-in holsters when not in use.
- Do not expose battery to fire or intense heat as it may explode. before disposing of the battery, protect exposed terminals with heavy-duty electrical tape to prevent shorting (shorting can result in injury or fire).
- Do not smoke or use inflammable items (matches, cigarette lighters, etc.) while working on a vehicle's battery system.
- Keep unit out of reach of children (whether stored or in use).

## **FIRST AID:**

- **SKIN:** if battery acid comes in contact with skin, rinse immediately with water, then wash thoroughly with soap and water. if redness, pain, or irritation occurs, seek immediate medical attention.
- **EYES:** if battery acid comes in contact with eyes, flush eyes immediately-for minimum of 15 minutes seek immediate medical attention.

## **CAUTIONS**

### **CAUTION STATEMENTS ADVISE AGAINST CERTAIN CONDITIONS AND PRACTICES THAT MAY RESULT IN DAMAGE TO VEHICLES, APPLIANCES AND/OR THE START-IT JUMPSTART SYSTEM.**

- Important: although this unit is delivered in a partially-charged state - you must fully charge it with the supplied 120 volt AC charger for a full 24 hours, before using it for the first time.
- Important: do not overcharge unit, this will reduce battery life.
- Use only the supplied cords for recharging/operating this unit. do not recharge for more than 3-4 hours maximum using 12 volt DC method. recharge unit after each use.
- All on/off switches should be in the off position when the unit is charging or not in use. make sure all switches are in the off position before connection to a power source or load.
- Never insert anything other than the supplied power/recharging cords or recommended appliance power/recharging cords into the 12 volt DC charging/power socket on this unit. do not use any accessory that is not recommended or provided by the manufacturer.
- Do not use this unit to operate appliances that draw more than 20 amps.
- This system is designed to be used only on vessels or vehicles with 12 volt dc battery systems. do not connect to a 6 volt or 24 volt battery system.
- This system is not designed to be used as a replacement for a vehicular battery. Do not attempt to jumpstart a vessel or vehicle that does not have a battery installed.
- Excessive engine cranking can damage a vessel's or vehicle's starter motor. if the engine fails to start after the recommended number of attempts. discontinue jumpstart procedure and look for other problems that may need to be corrected.
- Although this unit contains a non-spillable battery, it is recommended that unit be kept upright during storage, use and recharging. to avoid possible damage that may shorten the unit's working life, protect it from direct sunlight, direct heat and/or moisture.
- Check unit periodically for wear and tear. replace worn or defective parts immediately. Contact Vector® customer service department at (954) 584-4446 or toll free (866) 584-5504.
- Do not attempt to jumpstart a frozen battery.
- Never submerge this unit in water.

### **BATTERY REPLACEMENT:**

It is recommended to return unit to Vector® customer service for battery replacement: contact (954) 584-4446 or toll free (866) 584-5504.

### **BATTERY DISPOSAL:**

This unit contains a maintenance-free, sealed, non-spillable, lead acid battery which must be disposed of properly. some states require recycling. Disposal questions? in usa, call (877) 288-7722.

## 6. BATTERY REPLACEMENT

It is recommended that the unit be returned to Vector® customer service for battery replacement: contact (954) 584-4446.

### 6.1 BATTERY DISPOSAL

Contains a maintenance-free, sealed, non-spillable, lead acid battery, which must be disposed of properly. Some states require recycling - contact your local authority for information.



THIS UNIT CONTAINS A MAINTENANCE-FREE, SEALED, NON-SPILLABLE, LEAD ACID BATTERY WHICH MUST BE DISPOSED OF PROPERLY. SOME STATES REQUIRE RECYCLING. DISPOSAL QUESTIONS? IN USA, CALL 1-877-288-7722

### WARNINGS:

- Do not dispose of the battery in fire as this may result in an explosion.
- Before disposing of the battery, protect exposed terminals with heavy-duty electrical tape to prevent shorting (shorting can result in injury or fire).
- Do not expose battery to fire or intense heat as it may explode.

## 7. SPECIFICATIONS

Models	.....	VEC025MB, VEC025MY
Voltage	.....	12 volt DC
Boost Power	.....	400 Instantaneous Cranking Amps
Peak Ampere Power	.....	900 Amps
Battery Type	.....	Sealed, lead- acid, rechargeable, maintenance-free, 12 volt DC, 19 amp-hour
Bulb	.....	12 volt 0.4 Amp Krypton
Booster Cables	.....	#4awg welding cable with 400 amp nickel plated copper clamps
Accessory socket self-resetting breaker	.....	20 Amps
Charging cord	.....	12 volt DC
Adapter/charger	.....	120 volt AC (600ma, 12 volt DC output)
Height	.....	11-3/4" (29.845cm)
Depth	.....	6-1/4" (15.875cm)
Width	.....	11-5/8" (29.528cm)
Weight	.....	18lbs. (8.164kg)

## 8. REPLACEMENT PARTS

for replacement parts (bulbs, batteries, fuses, etc.), contact Vector® customer service: (954) 584-4446.



1. 12 volt DC charger/output socket, with overload protection
2. Safety on/off power switch (no key required)
3. Charge status button
4. Heavy-duty #4awg welding quality jumper cables
5. Heavy-duty, nickel plated copper clamps
6. Exclusive, quick-release, spring-loaded clamp holsters
7. 120 volt AC/DC charging adapter cord
8. 12 volt DC/DC charging adapter cord
9. Built-in emergency worklight
10. Light on/off switch

## FEATURES

- Heavy duty, professional quality.
- Easy-to-use: emergency jumpstarter for boats, cars, light trucks, jet skis, personal water craft, snowmobiles, farm equipment, airplanes, small SUVs and RVs (any 12 volt battery system).
- Provides instant 12 volt DC power - whenever and wherever it's needed.
- Ideal for vessel, vehicle, home, tailgate parties, beach, picnic, campsite, wilderness, utility power outages, emergency repair, etc.
- Sturdy and compact unit provides up to 50 hours of completely portable 12 volt dc power.
- Built-in cigarette lighter-type socket for use with 12 volt dc accessories or DC/AC inverter for use with 120 volt AC accessories.
- Portable, safe & convenient - goes where extension cords can't reach and utility power is not available.
- ON/OFF safety power switch (no key required, no key to get lost!).
- Cordless/rechargeable - includes charging cords for standard 120 volt AC wall socket and vehicle's 12 volt dc accessory outlet.
- Powerful - 400 instantaneous cranking amps; 900 peak amps.
- Solid-state, automatic operation and built-in circuit protection.
- Safe to use, transport and store.
- Includes non-spillable, maintenance-free, heavy-duty, 19 amp hour sealed battery.
- Requires no maintenance (other than recharging) for optimum operation.
- Molded high-impact case is tough and durable.
- Built-in, heavy-duty, corrosion resistant industrial grade nickel plated copper clamps contacts and #4awg jumper cables - with exclusive spring-loaded, quick-release storage holsters.
- 120 volt AC charger is Underwriter Laboratories safety tested and listed.
- Easy-to-read led battery charging/status indicators.
- Built-in halogen work/emergency light with ultra-bright krypton bulb for roadside repairs and use in remote locations without utility power.

## IMPORTANT INFORMATION:

**CAUTION: READ INSTRUCTION MANUAL AND PRODUCT LABELING CAREFULLY, FOR COMPLETE INSTRUCTIONS, BEFORE USING THIS PRODUCT. FOLLOW RECOMMENDED WARNINGS, CAUTIONS, SAFETY PROCEDURES AND MANUFACTURER GUIDELINES FOR YOUR VEHICLE'S BATTERY.**

- Important: although this unit is delivered in a partially-charged state-you must fully charge it with the supplied 120 volt AC charger for a full 24 hours, before using it for the first time.
- Important: do not overcharge unit, this will reduce battery life. charge until green "charged" indicator is lit when charge status button is pressed. after green "charged" indicator lights comes on when charge status button is pressed, unit can be top-off charged for an additional hour using the DC method or 2-4 hours using the AC method.
- Fully recharge unit after each use or when charge status indicator shows lower than "full" and every 2 months when not in use.
- Always recharge in a dry, well-ventilated area, away from water and fumes.
- When charging in any wet or damp area from a 120 volt electrical outlet, make sure that the outlet used is protected by a ground fault circuit interrupter (GFCI) switch.
- When charging the unit near water (pool, dockside, beach, etc.) do not allow the electrical cords and outlets to get wet or come near water - electrical shock could result!
- Use only the supplied cords for recharging/operating this unit.
- It is recommended that unit be kept upright during use and when recharging.
- When not in use, store unit with on/off switch turned off.

## SAFETY WARNINGS:

- There is a risk of explosive gases being released when batteries are improperly charged or discharged. failure to follow instructions may cause property damage, explosive hazard and/or personal injury.
- Always use protective eyewear when using this product. contact with battery acid may cause severe burns.
- Keep out of reach of children.
- Always store battery clamps in built-in holsters when not in use. never touch battery clamps together - this can cause dangerous sparks, power arcing and/or explosion.

## FIRST AID:

- **SKIN:** If battery acid comes in contact with skin, rinse immediately with water, then wash thoroughly with soap and water. if redness, pain or irritation occurs, seek immediate medical attention.
- **EYES:** if battery acid comes in contact with eyes, flush eyes immediately - for minimum of 15 minutes - seek immediate medical attention.

## 4. OPERATION AS A PORTABLE POWER SUPPLY

### 4.1 OPERATION AS A 12 VOLT DC POWER SUPPLY

NOTE: Make sure that the unit's safety on/off switch is always in the off position when using the 12 volt DC accessory outlet.

1. Lift up the cover of the unit's 12 volt DC cigarette lighter-type receptacle.
2. Insert the 12 volt DC plug from the appliance into the receptacle on the unit.
3. Switch on the appliance and operate as usual.

**CAUTION: DO NOT USE THIS UNIT TO OPERATE APPLIANCES THAT DRAW MORE THAN 20 AMPS.**

### 4.2 ESTIMATED 12 VOLT DC USAGE TIMES

Table II shows the estimated 12 volt DC operation times when using a fully-charged system.

Table II - START-IT as a 12 volt DC power supply

APPLIANCE TYPE	ESTIMATED CONSUMPTION (IN WATTS)	POWER ESTIMATED USAGE TIME (IN HOURS)
CELL PHONE	3	35
FLUORESCENT LIGHT	4	30
RADIO, FAN, DEPTH FINDER	9	21
CAMCORDER, VCR, SPOTLIGHT	15	12
POWER TOOLS, BILGE PUMP	24	7
ELECTRIC COOLER	48	3
AIR COMPRESSOR, CAR VACUUM	80	1.5

NOTE: all times are approximate, and based upon fully charged unit.

### 4.3 OPERATION AS A 120 VOLT AC POWER SUPPLY

use with VEC040 (50 watt), VEC023 (175 watt), or VEC024 (400 watt) MAXX® power inverters, sold separately. for estimated usage times, see chart provided with inverter.

1. Lift up the cover of the unit's 12 volt DC cigarette lighter-type receptacle .
2. Insert the 12 volt DC plug from the power inverter into the receptacle on the unit.
3. Plug the appliance into the 120 volt AC receptacle on the inverter.
4. Switch on the appliance and operate as usual.

**CAUTION: DO NOT USE THIS UNIT TO OPERATE APPLIANCES THAT DRAW MORE THAN 200 WATTS OR EXCEED MAXIMUM WATTAGE OF INVERTER.**

## 5. EMERGENCY/WORK LIGHT

### BULB REPLACEMENT

1. Replacement bulbs are available from Vector® customer service department; call (954) 584-4446.
2. Remove the lens cover.
3. Remove the burned-out bulb.
4. Replace with a new bulb (12 volt 0.4 amp krypton bulb) available from Vector® customer service department; call (954) 584-4446.
5. Snap the lens cover back into place.

### 3.2 12 VOLT DC CHARGING

The START-IT system also comes with a DC/DC charging cord, for recharging the unit from the 12 volt DC cigarette lighter socket in a vehicle or boat. note: this recharging method will NOT recharge the unit as effectively as recharging from a 120 volt AC outlet. the 12 volt DC recharging procedure is recommended only when it is necessary, as continued use of the 12 volt DC recharging procedure may shorten the battery system's life.

**WARNING: DO NOT RECHARGE FOR MORE THAN 6 HOURS MAXIMUM USING 12 VOLT DC METHOD.**

1. NOTE: If unit is fully discharged, it is recommended that the vehicle being used for recharging be left running while the unit is being charged via the 12 volt dc method.
2. Insert one end of the DC/DC charging cord into the 12 volt DC cigarette lighter receptacle on the vehicle or boat.
3. Insert the plug at the other end of this power cord into the 12 volt DC receptacle on the front panel of the unit.
4. Charge the unit until the green full led indicator lights when charge status indicator button is pressed. Do not exceed 6 hours maximum.
5. When charging is completed, remove the power cord and store in a safe place.

### 3.3 120 VOLT AC CHARGING USING VEC070 AUTOMATIC BATTERY CHARGER (purchased separately)

1. Install the charger's DC wire with battery clips.
2. The jumpstarter has a high-current switch for turing the heavy-duty clamps on and off, make sure the safety switch is turned off.
3. Connect the positive (red) DC battery clip to the red positive jumpstarter clamp.
4. Connect the negative (black) DC battery clip to the black negative jumpstarter clamp.
5. Connect the charger to an AC outlet or extension cord rated at 18 AWG or larger.
6. Turn on the safety switch and observe the red led on the charger for proper operation.
7. Charge the Start-It until the green charged led lights when charge status button is pressed.then continue charging for another hour.
8. When charging is complete, turn off the safety switch.
9. Disconnect the charger from the AC outlet or extension cord.
10. Disconnect the charger's battery clips from the jumpstarter's clamps.
11. Store the charger as described in it's owner's manual.
12. Place the jumpstarter back into service.

### 3.4 ESTIMATED BATTERY LIFE

Table I shows the relationship of the frequency of use between recharging and the expected number of discharge/recharge cycles

Table I - estimated battery life

Average number of uses (jumpstart or discharges) between recharges	Potential total number of jumpstart or discharge cycles (lifetime of unit battery)
1	1000+
5	700+
10	500+

## 1. INTRODUCTION

Congratulations on selecting the Vector® Start-It jumpstart system & 12 volt DC power supply. Please read this guide carefully before use to ensure optimum performance and avoid damage to the unit or items with which you are using it. this manual describes models VEC025MB (blue) and VEC025MY (yellow).

The Vector® Start-It jumpstart system & 12 volt DC power supply is a compact, durable and portable jumpstart system for vehicles and boats that have a standard 12 volt battery system. This self-contained, rechargeable system will start most boats and vehicles without the need for a host or 120 volt AC power supply. It can also be used as a safe, portable source of 12 volt DC electric power in remote locations and/or emergency situations. it is ideal for use with Vector® 12 volt DC cordless, portable, rechargeable products and MAXX® DC/AC power inverters. use the Start-It to:

- **JUMPSTART:** Any vehicle with a standard 12 volt DC battery system; boat, truck, car, airplane, rv, personal watercraft, snowmobile, tractor, etc.
- **OPERATE: 12 volt DC:** Fans, inflators, fluorescent work lights, cellular phones\*, air compressors, inflators, spotlights, tvs, portable radios, cassette, cd players and more. \*can quick-charge a cellular phone by using the phone's 12 volt DC adapter cord.
- **OPERATE: CERTAIN 120 VOLT AC ACCESSORIES**(requires DC to AC power inverter, sold separately)

The START-IT system has an easy-to-read, series of LED (light emitting diode) charge indicators that show when the unit is fully charged or the level of charge in the battery. charge level can be viewed when the charge status button is pressed. a 12 volt DC cigarette lighter-type socket is provided for use with appliances that can operate from a vehicle cigarette lighter. this allows maximum portability and utility when the Start-It is used in remote locations.

For maximum convenience, the START-IT can be recharged from any standard 120 volt AC or 12 volt DC power source using the built-in 12 volt socket and the appropriate charging/adaptor cord. when depressed, the push for status switch will show the battery 's power level status (from low to full). the green led full indicator illuminates when the unit is fully recharged. an on/off switch operates the built-in work/emergency light.

#### WARNING:

Lead-acid batteries generate hydrogen gas during normal operation. more gas is generated when the battery is charging. hydrogen gas is: EXPLOSIVE • POISONOUS TO BREATHE • HIGHLY FLAMMABLE

To avoid an explosion and/or the possibility of being splashed with battery acid:

- Never allow the red and black clamps to touch each other or a common metal object.
- Only attempt to jumpstart a vehicle or boat in a well ventilated area.
- Always connect the red (+) clamp to the positive (+) battery terminal first.
- Do not connect the black (-) clamp to the negative (-) battery terminal.
- Connect the black (-) clamp to a non-moving metal part on the engine.

#### CAUTIONS:

1. To avoid possible damage that may shorten the unit's working life, protect this unit from direct sunlight, direct heat and/or moisture.
2. This system is designed to be used only on boats or vehicles with 12 volt dc battery systems.
3. This system is not designed to be used as a replacement for a vehicular battery.

recommendations for optimum performance of the START-IT jumpstart system: WARNING: never insert anything other than the supplied power/recharging cords or recommended appliance power/recharging cords into the charging/power sockets on this unit.

IMPORTANT: the safety on/off switch should be in the off position when the unit is charging, or not in use.

## 2. USING THE START-IT AS A JUMPSTART SYSTEM

### CAUTIONS:

- Before using this system to jump start any boat or vehicle engine, read and understand all instructions, safety tips, Warnings and Cautions and first aid information provided in this manual and on the product labeling. additional important information may also be provided by the vessel's or vehicle 's battery system manufacturer.
- Excessive engine cranking can damage the vessel's or vehicle 's starter motor. If the engine fails to start after the recommended number of attempts, discontinue jumpstart procedure and look for other problems that may need to be corrected.

### 2.1 EASY, STEP-BY-STEP JUMPSTARTING INSTRUCTIONS

1. Turn off vessel's or vehicle's ignition and all accessories (radio, a/c, lights, cell phone, etc.). place vehicle in "park" and set the emergency brake.
2. Make sure jumpstart system safety switch is turned off.
3. Follow procedure for negative or positive grounded system, as follows:

#### NEGATIVE GROUNDED SYSTEM

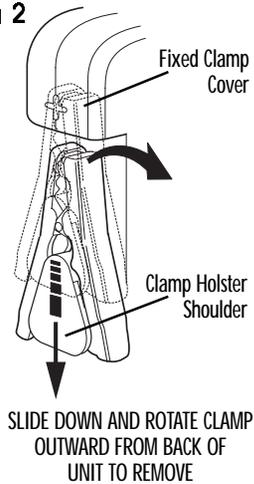
(negative battery terminal is connected to main engine block MOST COMMON METHOD:

- To remove booster clamps from protective holster (fig. 2): simply pull down on clamp, (shoulder rest is spring loaded)-rotate top of clamp outward while you pull down-when clear of clamp cover remove clamp. To replace booster clamp into protective holster - return clamp to shoulder rest, rotate out and push down then slide clamp up into protective cover.
  - Connect positive (+) red clamp to vehicle battery 's positive terminal.
  - Connect negative (-) black clamp to chassis or a solid, non-moving, metal main engine part. never clamp directly to negative battery terminal or moving part. of engine.
4. Turn jumpstart system's safety switch to on position.
  5. Start vehicle (do not turn key for longer than 5-6 seconds).
  6. After vehicle starts, turn jumpstart system 's power switch to off position. remove clamps (disconnect the negative (black) jumper cable first; followed by the positive (red) jumper cable) and replace them in the built-in storage holsters.or moving part.

### CAUTIONS:

- If vessel or vehicle fails to start, leave vessel or vehicle ignition key turned off, disconnect the negative (-) clamp first, then the positive (+) clamp and discontinue jumpstarting procedure.
- recharge jumpstart system after each use.

Fig 2



- Never allow red and black clamps to touch each other or another common metal conductor - this could cause damage to the unit and/or create sparking/explosion hazard.
- There is a risk of explosive gases being released when batteries are improperly charged or discharged. failure to follow instructions may cause property damage, explosive hazard and/or personal injury.
- Always use protective eyewear when using this product: contact with battery acid may cause blindness and/or severe burns.
- Keep out of reach of children.
- Always store battery clamps in built-in holsters when not in use. never touch battery clamps together-this can cause dangerous sparks, power arcing and/or explosion.

### FIRST AID:

- **SKIN:** if battery acid comes in contact with skin, rinse immediately with water, then wash thoroughly with soap and water. if redness, pain, or irritation occurs, seek immediate medical attention.
- **EYES:** if battery acid comes in contact with eyes, flush eyes immediately-for minimum of 15 minutes-see immediate medical attention.

## 3. CHARGING/RECHARGING

For maximum battery life, we recommend that the Start-It system be kept fully charged at all times. if the battery is allowed to remain in a discharged state, battery life may be shortened. NOTE: recharging battery after each use will prolong battery life; frequent discharges between recharges will reduce battery life.

### 3.1 120 VOLT AC CHARGING

#### IMPORTANT:

- Make sure safety on/off switch is in off position during recharging.
  - Charge unit for full 24 hours, prior to first use.
  - Recharge unit fully after each use.
  - Recharge unit every two months, when it has not been used.
1. Simply plug the 120 volt AC plug of the AC/DC adapter/charger cord into any standard 120 volt AC wall outlet.
  2. Plug the 12 volt DC cigarette type plug into the 12 volt DC receptacle on the unit.
  3. Charge this device for until the full LED indicator lights when charge status button is pressed.
  4. NOTE: the unit can be overcharged (which will shorten the life of the battery - do not charge with ac charging procedure for more than 24 hours maximum.
  5. when charging is completed, remove the power cord and store in a safe place.

