(802) 468-7697 cicpowerbox.com support@cicpowerbox.com VERSION OCTOBER 2018

### INSTALLATION MANUAL SERIAL #

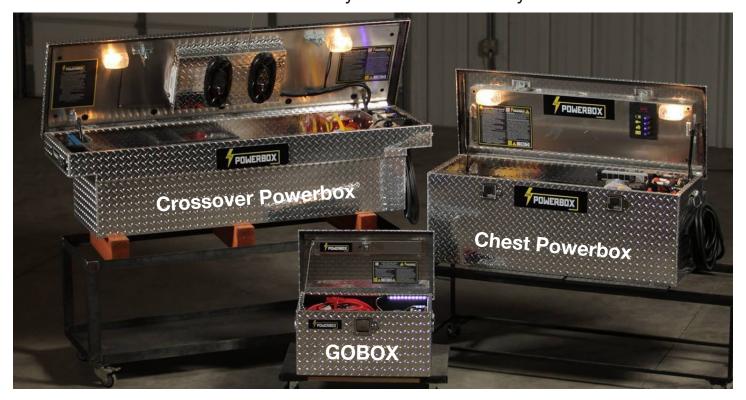
### INSTALLATION MANUAL & OPERATIONAL TEST

Save This Manual & Read Before Use:

This manual will explain how to safely and effectively install your CIC Powerbox<sup>™</sup> product. Please read and adhere to all instructions and precautions carefully. Keep this manual in a safe and dry place for future reference. For all superseding company updates, operating instructions, and warranty information, please see our website at www.cicpowerbox.com or contact us directly at PHO# 802-468-7696.

### Models:

12v & 12/24v Crossover- Standard & Contractors Full sized toolboxes 12v Chest- Standard & Contractors in-the-bed toolboxes 12v GOBOX- Totally Portable Power System



### Warning!

Read this manual and adhere to all warnings and precautions found herein and on the device itself. Also read all warnings and operating information for any tool or product to be used in conjunction with the CIC POWERBOX product before use. Failure to do so could result in property damage, serious injury or even death.



### !WARNING!

DO NOT DRILL OR CUT INTO THE CIC POWERBOX™
HAZARD OF ELECTRICAL SHOCK FROM AC POWER
& DC BATTERY POWER & EXPLOSION FROM 125 PSI
COMPRESSED AIR TANK

It is recommended that you thoroughly read both the CIC Powerbox<sup>™</sup> Owner's & Installation Manuals before attempting any installation or operation of your product.

The bottom area, sides, upper edge saddle compartments, and lid of the CIC Powerbox<sup>™</sup> are filled with electronics, AC electrical circuitry, a reserve air pressure tank, a high-powered battery system and other special components. Any breech of these components could electrocute, cause a fire, cause a chemical spill or even explode, causing property damage, injury or even death. Do not drill into or penetrate the CIC Powerbox<sup>™</sup> in any way. Opening the interior cover panels or penetrating the CIC Powerbox<sup>™</sup> in any way will void the warranty.

Customer must use the existing mounting holes inside the CIC Powerbox<sup>™</sup> saddle compartmentsortheChest'L'BracketsforattachmentoftheCICPowerbox<sup>™</sup>tothevehicle.

It is recommended that the installation of this system is done by a professional. Any CIC Powerbox<sup>TM</sup> system that is not properly installed shall void any warranty and could cause failure of the CIC Powerbox<sup>TM</sup> system, along with physical damage to the user and the vehicle. CIC POWERBOX LLC shall not be held liable for any occurrence of injury or damage to property due to an improper installation.

IF YOU ENCOUNTER ANY PROBLEMS DURING INSTALLATION PLEASE CONTACT CIC POWERBOX LLC

(802) 468-7697 SUPPORT@CICPOWERBOX.COM

### SAFETY WARNINGS & HAZARDS





















Your CIC Powerbox<sup>™</sup> contains Hazardous voltage & compressed air inside. Misuse can result in fire, explosion, property damage, personal injury or death by electrical shock, compressed air, or high AMP DC.

This manual will provide you with directions for the safe and effective installation of your CIC POWERBOX<sup>TM</sup> product. Please read the Owner's Manual carefully before using your new CIC POWERBOX<sup>TM</sup> product and keep both manuals on file for future reference.

PROTECT yourself, others and your personal property. Read, understand and adhere to all information in this manual before use.

### SAFETY ALERT SYMBOL



Read all warning and safety precautions in this OWNER'S MANUAL and as labeled on the CIC POWERBOX<sup>TM</sup> Product carefully AS WELL AS all other warning and safety precaution materials for any other product(s) potentially found in or to be used with the CIC POWERBOX<sup>TM</sup> before use and adhere to and follow all directions during use.



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### INSTALLING YOUR CIC POWERBOX™

It is very important that you read this Manual in its entirety.

### Time & Help:

It is recommended that you plan approximately 1-2 hours for installation time. For the easiest installation and for safety reasons, it is recommended that two people install the CIC Powerbox<sup>TM</sup>.

### Important Terms:

- The vehicle in which the CIC Powerbox<sup>™</sup> is being installed will be referred to as "The Vehicle".
- •The side of the CIC Powerbox<sup>™</sup> containing the master control switch-panel (Crossover & Chest Models) will be referred to as the "Passenger Side" of the CIC Powerbox<sup>™</sup> and the opposite side will be referred to as the "Driver Side." When properly installed, the CIC Powerbox<sup>™</sup> will typically be oriented in such a way that the master control switch panel is located on the passenger side of the vehicle.

#### What You'll Need:

### **Tools: (Figure 1)**

- Electric Drill
- Ratchet Wrench and Extension
- ½" extra-deep socket
- 1" Step-Bit or Hole Saw
- Flat Head Screwdriver
- 3/8" Socket with Drill Adapter
- 7/16" Wrench
- Tool For your vehicle's battery terminal
- Measuring Tape
- Wire Brush
- Digital Volt Meter (Optional)
- Metal File

### Parts & Hardware:

- Installation Packet (Included)(Figure 2)
  - Fusible Link & bolt set
  - 2 J bolt set (Crossover)
  - Mounting Bolt Set (Chest)
  - 10 Cable Ties
  - Self-Tapping Screw
- Cable Harness (Included)(Figure 3)
- 2 Foam Adhesive Pads (Included w/ Crossover)
- Electrical Tape

### **Personal Protection Equipment (PPE):**

- Gloves
- Safety Glasses
- Steel Toed Boots or Shoes









### Before Installation Please Ensure That:

- The bed of the vehicle is empty for easy access and installation.
- All CIC Powerbox<sup>™</sup> Switches are in the "OFF" position and the lid is properly closed.
- The Vehicle is parked in a safe, well-ventilated location with the engine off and the parking brake on.
- The Vehicle's engine hood is open and securely locked in place, allowing access to the vehicle battery.

### Lifting & Moving the CIC Powerbox™:

The CIC Powerbox<sup>™</sup> weighs approximately 300+ lbs. (GOBOX approx. 100 lbs). Always use care in lifting, moving, and installing your CIC Powerbox<sup>™</sup>. When using any mechanical lifting or hoist type system, always use the underneath/bottom side of the CIC Powerbox<sup>™</sup> for best support. If installing a Crossover style CIC Powerbox<sup>™</sup>, you may also use the underneath saddle box areas as a mechanical lifting connecting point for mechanical strength. If lifting the CIC Powerbox<sup>™</sup> by hand, please use care, proper lifting techniques and proper attire and avoid pinch points which may cause injury.

### INSTALLATION













**!CAUTION!:** Throughout the installation process, please take care to install the CIC Powerbox<sup>™</sup> and wiring system in such a way that the vibration and movement caused by the vehicle while it is operating and in motion over thousands of miles will not jeopardize the integrity of the CIC Powerbox<sup>™</sup> or its electrical cable harness.

Preparing the bed for the Installation of the CIC Powerbox<sup>™</sup> Quick Disconnect Cable Harness:



In the vehicle bed, directly behind the cab, look for an opening in the front passenger corner of the vehicle bed, either on the bed floor or on the bed back side wall adjacent to the cab. Most pickup trucks have a rubber boot covered openings in the bed frame next to the cab to allow for either drainage or wire feed-throughs. (Figure 4)

If the vehicle has an existing opening covered with a rubber boot, use a hole-saw or step bit to drill a 1" diameter (min) hole in the middle of the rubber boot.

If an opening does not exist, carefully drill a 1" hole (min) using a hole-saw or step bit in the bottom right corner of the vertical bed wall adjacent to the cab. Take care to not drill into the cab of the vehicle. Using a metal file, remove all burs and sharp edges from the metal hole so that over time, the Quick Disconnect Cable Harness will not wear through and risk a short circuit of the system. A few strips of electrical tape can be used as an improvised grommet to insulate the edge of the hole to prevent the wearing or cutting of the cable harness as it is fed through.

### Installing the CIC Powerbox<sup>™</sup> Quick Disconnect Cable Harness:

**!CAUTION!**: Contact between the vehicle chassis and the copper wiring of the CIC Powerbox<sup>™</sup> positive cable can cause a short circuit in the system, resulting in possible sparks, fire, property damage, and injury.

The cable harness is normally ran from the bed area of the vehicle to the engine compartment underneath and along the passenger side of the vehicle.

The split loomed ring terminal end of the positive (red) cable runs all the way from the vehicle bed area to the positive terminal on the vehicle battery and the shorter negative (black) cable runs down to a connection point on the chassis of the vehicle for direct negative grounding and completion of the circuit. The quick disconnect Red DC Connector remains in the vehicle bed for final connection to the CIC Powerbox<sup>TM</sup> quick disconnect system.

**Note:** The standard length of the Quick Disconnect Cable Harness is 24'. If a longer length of Cable Harness is needed for your installation, please contact CIC POWERBOX LLC before purchase of your product.

- 1. Begin feeding the ring terminal end of the Quick Disconnect Cable Harness through the hole/opening in the bed chassis (take care to keep the cable inside the split loom and protected from any sharp edges) (Figure 5)
- 2. Continue feeding the cable harness through the opening until both the positive and negative cables are running through the opening and leave approximately 3 feet of cable with the Red DC Connector remaining inside the bed (or enough length to properly connect the cable harness to the CIC Powerbox™ once it is installed to its final position).

**Note:** If you wish to leave a longer length of cable in the bed (for use with an additional CIC Powerbox<sup>™</sup> product or as an additional 12V jump start connection point) you may do so. However, make certain to leave enough length of positive and negative cable on the opposite end to properly connect the cable harness to the vehicle's chassis and to the vehicle's positive battery terminal.









- **3.** With both cables fed through the hole and running underneath the vehicle, begin running the positive cable along the vehicle chassis or vehicle frame towards the engine in a manner that avoids the vehicle's fuel tank, drive shafts, exhaust assembly and any other parts of the vehicle that move or become hot. **(Figure 6)**
- **4.** As you run the positive cable, use the supplied cable ties to secure the cable to the vehicle. **(Figure 7)** Leave the cable ties loose during the initial installation to allow length adjustment of the cable, forward or back, as needed.
  - a. Make certain that the positive cable remains inside the protective split loom sheath throughout the length of cable being run, especially in areas where there could be vibration or any rubbing action which would cause wear to the wires and damage to the insulation.
- 5. Once the positive cable has been properly secured to the chassis, carefully feed the cable toward the engine compartment running the cable in between the front passenger wheel well and the firewall of the engine (you may need a second person standing above the front passenger wheel to grab and pull the end of the positive cable through to the engine compartment and up toward the vehicle battery).

**Note:** Use a cable tie(s) to anchor the cable so it will not be at risk of coming into contact with the vehicle's wheel, suspension, or axle.

- 6. Run the positive cable to the vehicle battery avoiding the vehicle's engine as much as possible. Make sure the cable has enough length so that it will easily reach the positive battery terminal without being pulled or stretched taught. When the remaining length of both ends of the cable harness meet your satisfaction, use the supplied cable ties to secure the positive cable to a sturdy mechanical contact point in the engine compartment and near the battery. Allow enough slack of cable for the final hook up to the positive battery terminal.
  - **a.** If installing in a vehicle with two batteries, run the positive cable to the main battery, NOT the auxiliary battery.

**Note:** If the vehicle's main battery is on the driver's side of the vehicle, it is recommended to run the positive cable along the top of the engine firewall but underneath the lip where the vehicle hood closes and seals. Make sure that the cable will not experience any excess heat from the engine or any pinching action from the hood closing and that the cable tie connection points are secure. Ensure that there is adequate slack for easy connection to the vehicle battery.

- 7. Spool and cable tie any excess cable near the battery in a safe and secure place where it will not fall into or meet any parts of the engine that move or become hot (Figure 8).
- **8.** Return to the positive cable wire assembly under the vehicle and securely tighten all cable ties into their permanent positions then cut excess tie.



Connecting the Positive Cable to the Vehicle's Battery:







**!CAUTION!** DO NOT CONNECT THE CIC POWERBOX™ POSITIVE CABLE TO THE VEHICLE'S NEGATIVE BATTERY TERMINAL.

**!CAUTION!** If you see any sparks or electrical arcing of any kind during any portion of the following assembly, please cease and disconnect all battery connections and check the cable harness assembly for a dead short to the chassis of the vehicle. Please contact CIC POWERBOX LLC for assistance.

**!CAUTION!** Once the positive cable is connected to the positive battery terminal the red quick disconnect in the bed will be live with 12v DC power.

**!WARNING!** Connecting the positive cable to the vehicle's battery may cause sparks. Make certain you are in a well-ventilated area.

- 1. Remove the fusible link and bolt assembly from the installation package.
- Using the supplied bolt assembly, securely connect the fusible link to the ring terminal of the CIC Powerbox<sup>™</sup> positive cable. (Figure 9)
- 3. Using electrical tape, wrap the fusible link and ring terminal connection point of the positive cable several times to provide a layer of insulation around the exposed metal of the assembly. (Figure 10)
- **4.** Locate the vehicle's positive battery terminal or interconnecting/auxiliary connection point and remove the connecting nut from its threaded connection point.
  - a. If the vehicle has a secondary electrical contact point that connects directly to the positive terminal of the main battery system, this could potentially be an adequate contact point if the vehicle's cabling is sized equally to or greater than the positive cable from the CIC Powerbox<sup>TM</sup> cable harness.





## POWERBOX



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- **5.** Securely connect the open end of the fusible link to the vehicle's positive battery terminal using the battery's positive battery terminal's nut and properly tighten into place. **(Figure 11)**
- 6. Make certain the fusible link and the ring terminal of the CIC Powerbox's™ positive cable are not in contact with or at risk of contacting any other part of the vehicle before, during, and after the installation of the positive cable.
- 7. Pull the split loom around the fusible link assembly and use a cable tie to hold the split loom in place as an added layer of insulation. (Figure 12)
- **8.** Wrap electrical tape around the connection assembly for added insulation as you deem necessary.
- **9.** Once the fusible link assembly is properly insulated, use a cable tie to strain relieve and anchor the cable assembly in such a way that the cable will not fall into the engine or come into contact with any part of the vehicle in the event that the fusible link is compromised due to a direct short. **(Figure 13)**

Grounding the Cable Harness:





**!CAUTION!** Before drilling in the self-tapping screw, please make certain that the other side of chassis is clear of any vehicle wires or fluid lines.

- 1. Return to where the cable harness drops between the cab and the bed of the vehicle and identify the negative grounding cable ring terminal of the cable harness assembly. (Figure 14)
- **2.** Find a connection point where the negative ground ring terminal can be attached to the vehicle chassis.
- **3.** Using a wire brush, clean any debris or paint from the chosen grounding connection point (approximately 1" square) to ensure that a solid conductive electrical connection can be made between the ring terminal and the vehicle's chassis frame.
- 4. Using an electric drill or portable impact driver with a 3/8" (or matching) socket driver head, position the supplied self-tapping screw through the negative grounding cable ring terminal and drill into the grounding connection point on the vehicle chassis frame making sure the ring terminal of the negative grounding cable is secured into place for both mechanical and electrically conductive efficiency. (Figure 15)

- **5**. Strain relieve and cable tie any slack in the negative grounding cable to a mechanically secure connection on the vehicle **(Figure 16)**
- **6**. If you have a digital volt meter available, please test the quick disconnect red connector in the bed of the vehicle for a reading of the vehicle's battery voltage and its polarity to ensure proper connection.



### MOUNTING THE CIC POWERBOX™ IN THE VEHICLE



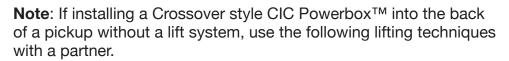






Installing the Crossover Model: (Figure 17)

**Note:** If concerned about scratching or scuffing the bed rail during installation, place a piece of cardboard in between the CIC Powerbox<sup>™</sup> sidesaddle mounts and the truck bed rail during the mounting process. If desired, place the supplied foam mounting pads adhesive side up to the underside of the Crossover's saddle mounts.



- 1. Carefully lift the passenger side with the quick disconnect red connector end of the CIC Powerbox<sup>™</sup> into the bed of the vehicle first and then slide (or set) the CIC Powerbox<sup>™</sup> into the bed so that the majority of the CIC Powerbox<sup>™</sup> is in the truck and will not fall out. (Figure 18)
- 2. Lift and set the passenger side front saddle box corner of the CIC Powerbox<sup>™</sup> onto the passenger side bed rail. Make certain the corner of the CIC Powerbox<sup>™</sup> is securely resting on the bed rail and will not fall off as it will be set at an angle. (Figure 19)
- 3. Using the passenger side saddle box corner of the CIC Powerbox<sup>™</sup> as a pivot point, lift the driver's side end (opposite end) up and over the side railing of the





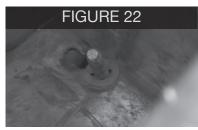


## POWERBOX



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- vehicle bed toward the cab until the CIC Powerbox<sup>™</sup> is crossways (perpendicular) in the bed. Set the CIC Powerbox<sup>™</sup> down so that its saddle boxes are set properly on the side railings of the vehicle bed. (Figure 20)
- **4.** Once in position, slide the CIC Powerbox<sup>™</sup> toward the cab of the vehicle until the back of the Powerbox is flush with the bed's back wall.
- 5. To ensure proper clearance between the lid and back wall of the vehicle's cab, open the CIC Powerbox™ lid and verify clearance (be sure the fully opened lid will not hit the rear window of the vehicle). (Figure 21)
- 6. Make certain the CIC Powerbox<sup>™</sup> is centered properly between the bed railings by measuring the CIC Powerbox<sup>™</sup> position inside the truck bed. Adjust as needed.
- 7. Once positioned, check in each saddle compartment side box and make sure that there is enough spacing to pass the supplied J bolts through the pre-drilled holes inside the saddle box sides. Adjust as needed.
- **8.** Insert J-Bolt threaded ends up through the holes from the bottom. **(Figure 22)**. Hook the curved ends of the J-Bolts under the tops of the truck bed side rails. Place nylon retaining washer on J-Bolts to hold them in place.
- Place the supplied washers on top of the nylon retaining washers and then thread the supplied lock nuts onto the threaded end of the J Bolt Assembly.
- 10. Using the ratchet wrench with extension and 1/2" deep socket, tighten until J Bolt Assembly mechanically secures the CIC Powerbox™ to the truck bed side rails. Note: Do not over tighten.



### Mounting on a Flat Bed with Brackets:

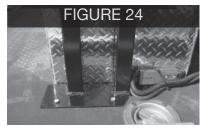
The optional mounting brackets enable the user to mount any Crossover style CIC Powerbox<sup>™</sup> to a flatbed truck, or flat surface on a service truck. **(Figure 23)** 

**Note:** Because of the wide variety of mounting needs and preferences, the mounting brackets will have no existing mounting

holes, and no mounting bolts or mounting hardware provided with the flatbed mounting brackets unless specially requested from the factory before purchase of the product.

- **1.** Using the lifting techniques previously discussed, set the CIC Powerbox<sup>™</sup> into its proper position and then position the mounting brackets into their final mounting positions.
- **2.** Mark the bed locations to be drilled and inspect below the bed to allow for the safe drilling of holes and installation of mounting bolts.

- **3.** When the mounting configuration is known, drill holes through the bed and the mounting brackets and bolt in place.
- 4. You may need to alter/modify the brackets to fit properly for each application. Make sure that the final mounting of the brackets to the bed and to the CIC Powerbox™ are secure and appear to be able to withstand normal vibration and wear and tear from the vehicle's movement over time. (Figure 24)







### Installing the Chest Model:

Note: The Chest style CIC Powerbox<sup>™</sup> may be mounted in a variety of ways that best suit your vehicle or work style. Call (802) 468-7697 for tips or suggestions on the best mounting technique for you. (Figures 25 & 26) Standard mounting bolts are included with this model. Please notify CIC Powerbox LLC of any special mounting variations prior to purchase.

- Using the lifting techniques previously discussed, set the CIC Powerbox<sup>™</sup> Chest model into its proper position in the vehicle.
- 2. Mark the bed and inspect below the bed to allow for the safe drilling of holes and installation of mounting bolts through existing mounting brackets.
- 3. When the mounting configuration is known, drill holes through the bed and bolt the CIC Powerbox<sup>™</sup> Chest model in place. (normal and secure mounting requires a minimum of 2 attachment points of adequate size to restrain ~ 300 lbs.)

## Fractions:

FIGURE 27

### Installing the GOBOX Model: (Figure 27)

**Note:** The GOBOX is a completely portable CIC Powerbox<sup>™</sup>. Although it is not designed to be permanently mounted in any vehicle, it can be restrained or bolted in place. If you have purchased the optional Vehicle Battery Connection

Cable Harness, install the Cable Harness in the same manner as previously described with the Red Connector accessible to your CIC Powerbox<sup>™</sup> in your preferred location on the vehicle (back seat, trunk, etc.). Make certain that the GOBOX is securely held or strapped in place before operating or moving the vehicle, especially if the unit is plugged into the vehicle electrical system.

If you wish to permanently mount the GOBOX model in or on a vehicle, contact CIC Powerbox LLC before purchase to discuss custom mounting options (802) 468-7697.



### CONNECTING THE CIC POWERBOX™ TO THE VEHICLE'S ELECTRICAL SYSTEM:







**!CAUTION!** Before connecting your CIC Powerbox<sup>™</sup> to your vehicle's electrical system, please make certain that all wires are properly attached and strain relieved for long-term travel and vibration. Please consider long-term effects of vibration and wear and tear on the wires and make sure that your installation of the wires will not damage the protective insulation sleeve on the wires over time leading to direct contact of the wires to the chassis of the vehicle, as this may cause a direct electrical short and possible arcing, fire or injury.



- Connect the Quick Disconnect Red DC Connector end of the cable harness into the Quick Disconnect Red DC Connector point at the base of the passenger side of the Powerbox. (Figure 28)
  - **a.** Ensure that the Red connectors are fully pushed together and securely connected.

**Note:** After making the connection watch and listen for any indication of a problem with the wiring harness assembly or the CIC POWERBOX<sup>TM</sup> itself. If you see sparks, smoke, or notice that the wiring harness is getting extremely warm/hot, or you hear unusual noises, immediately disconnect the red connector system and re-verify your connections.

If there are no issues, continue to the next step.

Testing the Vehicle Connection:



**!CAUTION!:** Testing of the CIC Powerbox<sup>™</sup> should be done outside or in a well-ventilated area as the vehicle motor will need to be started and operated for a short time.

Before testing the functions of the CIC Powerbox<sup>™</sup>, it is important to ensure that the unit has been properly connected to the vehicle's electrical system.

On the Crossover and Chest models, you will find a Vehicle Connection Control Module. Some models have this special Control Module located on the lid or in the passenger side saddle box, typically marked with the word "Attention".

- 1. Verify that the Vehicle Connection Control Module's switch (see page 21) is in the "charging / normal" position.
- 2. Turn "ON" Digital Volt Meter (DVM) switch # 5 on the Crossover (Figure 29) or # 4 on the Chest (Figure 30) (the switch adjacent to the battery icon). (See page 20)
- **3.** The DVM will read a nominal 12.5 volts for a normally charged battery.
- **4.** Start the vehicle.
- **5.** With the vehicle running, check the DVM for a reading of approximately 13-14 volts. (**Figure 31**)
  - a. When the vehicle's engine is running properly, the DVM should read a voltage of approximately 13 volts or higher. This will verify that the CIC Powerbox<sup>™</sup> is correctly connected to your vehicle power system and that the vehicle motor is charging the CIC Powerbox<sup>™</sup> battery. There could be a delay of up to 60 seconds.
- 6. Turn the vehicle's engine off and verify that the DVM reading drops to approximately the same reading as before the vehicle was started. This will verify that your CIC Powerbox™ is properly disconnecting from the vehicle when the vehicle is not running.
- 7. Turn "OFF" switch # 5 on Crossover or switch # 4 on the CHEST.

**Note:** Some portable GOBOX Models do not have a Vehicle Connection Control Module. The vehicle connection may still be tested in the same manner as described above, however, the inverter switch must be turned "ON" and the DVM can then be monitored as previously described. Please remember that, when the quick disconnect cabling is properly connected and plugged in, the GOBOX Models are directly connected to the vehicle battery. This means that the GOBOX will be connected to the vehicle battery system even when the vehicle's engine is off.









### **OPERATIONAL TEST OF ALL SYSTEMS:**





















Once the CIC Powerbox $^{\text{TM}}$  is properly installed, run a complete system check.



**Note:** Switches are numbered counting left to right on the Crossover Model (Figure 32) and bottom to top on the Chest Model (Figure 33) and will illuminate a blue light when in the "ON" position. All switches and functions will remain "ON" until manually turned "OFF."

Work Lights / Switch # 3:



!CAUTION!: The lights will NOT automatically turn "OFF".

Turn "ON" switch # 3, the switch adjacent to the Light Bulb icon.
 (Figure 34)



This is your master light control switch that turns "ON" both built-in work lights. You may leave the lights on if it assists you in your system test. Please note that the lights should be turned "OFF" prior to shutting the lid.





- 1. Make sure that the portable retractable electrical cord reel is plugged into the internal AC outlet strip and that the red LED on the top of the extension cord outlet end is facing up and in view. (Figure 35)
- 2. Turn "ON" switch # 1, the switch adjacent to the Electrical Outlet icon. (Figure 36)
- 3. Wait 5 seconds. You should now have AC Electric Power at all

CIC Powerbox<sup>™</sup> outlets. The red LED light on your electrical outlet from your portable retractable cord reel will be illuminated if the AC power is "ON" and it is properly plugged into the activated CIC Powerbox<sup>™</sup> internal power strip outlet. The AC electrical power will also be available at the external weatherproof electrical outlets (Crossover Only) on the passenger side through the saddle box.

**4.** Turn "OFF" switch # 1.

### DC Cooling Fan / Switch #2:

Switch # 2 has two distinct functions. The first function is to activate the internal cooling fan for the CIC Powerbox<sup>™</sup>, which when activated, will cool the entire system during extreme

heat conditions. Its second function is to operate the internal Compressed Air Power System, which operates **only when the AC Electric Power is "ON"** (Switch # 1).



- **1.** To test the cooling fan, make sure Switch # 1 is in the "OFF" position.
- 2. Turn "ON" Switch # 2, the switch adjacent to the Air Compressor icon. (Figure 37)
- 3. Your DC Cooling Fan should now be operating and you should now be able to hear the fan quietly running inside the CIC Powerbox<sup>™</sup>. To check air flow, you can lower your hand down into the CIC Powerbox<sup>™</sup> next to the pressure gauge of the retractable hose reel to the deepest section of the floor. You should feel air flowing out from the base the CIC Powerbox<sup>™</sup>.
- **4.** When you have completed the test, turn "OFF" switch # 2.

**Note:** Please note that the DC Cooling Fan will always be activated while the AC Air Compressor is engaged.

Also, be aware that the built-in AC Inverter System has a thermal cut out and will automatically shut off if the system overheats to 140°F. If working in extreme heat conditions, we recommend that you periodically turn all switches, except switch # 2, to the "OFF" position and allow the DC Cooling Fan to cool the system before returning to any operations.



Compressed Air Power System / Switch # 1 + # 2:









!CAUTION! Always use safety glasses and gloves when operating the CIC Powerbox<sup>™</sup> compressed air system.

Always remember that the compressed air power system uses AC power from the CIC Powerbox<sup>™</sup> and requires Switch # 1 to be switched "ON" first, before switching "ON" Switch # 2.

**Note:** Once you successfully start the air compressor system, always allow the system to operate through to a complete air charge cycle of 125 psi where it will automatically shut off. Please do not shut off the air compressor pump in the middle of a charge cycle.



FIGURE 39

**Features:** There is a pop-off pressure relief valve (**Figure 38A**), an air pressure gauge (**Figure 38B**), and flow regulator (**Figure 38C**) attached to the side of the retractable hose reel. Use the pop-off pressure valve to drain air from the reserve air tank by pulling on the metal ring valve control. Use the pressure gauge to read the pressure in the on-board air tank system. Use the adjustable air flow dial to set your desired air flow (0-MAX) to the retractable hose reel assembly (**Figure 39**). Normally, this dial is set to maximum flow for proper use.

- 1. Turn "ON" switch # 1 and wait 5 seconds.
- 2. Turn "ON" switch # 2, the switch adjacent to the Air Compressor icon.

The built-in air compressor should now begin filling the built-in reserve air-tank. The pressure gauge will begin tracking from 0 psi until it

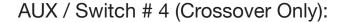
reaches its max of 125 psi. Allow the air compressor system to complete a full charge cycle. This will take approximately 75 seconds for the air compressor to completely fill the built-in air tank reservoir. When the system reaches its full charge, it will automatically shut off and will wait for the pressure to drop below 90 psi before beginning another compressed air charge cycle.

**Note:** If for any reason the air compressor pump fails to start and run, please turn switch # 2 back to the "OFF" position immediately. To reset the system, turn all switches "OFF", check to see that the silver circuit breaker (mounted in the interior and toward the front of the CIC Powerbox™ in front of the hose reel) **(Figure 40)** for the air pump has not been tripped (button popped out), and then drain all air pressure in the on-board air reserve system by pulling on the pop-off valve metal ring mounted on the hose reel assembly. When pressure reads zero, you may return to step # 1.



- **3.** If the compressed air system has charged properly, turn Switch # 2 "OFF".
- 4. Turn Switch # 1 "OFF".

**Troubleshooting:** If your air power tool that is connected to your retractable air hose reel doesn't seem to have the proper power or the air pressure from the hose reel seems to drop very fast during tool use, please check your air pressure regulator valve to make sure it is set at the maximum setting or the proper setting for the tool you are using.



**Note:** If your system does not have an auxiliary function you may skip this test.

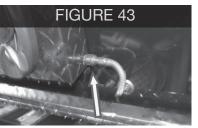
AUX / Switch # 4 on the Crossover Model CIC Powerbox<sup>™</sup> is the master control for any auxiliary device that may be installed. Typically, this switch powers the Rockbox Stereo (Figure 41), the LED strobe light (Figure 42), fuel transfer pumps or other auxiliary devices that may have been installed or attached to the CIC Powerbox<sup>™</sup>.

**Note:** Please be aware that the Rockbox Stereo has a separate detachable power connection cable on the bottom right-hand side of the lid to which it is mounted **(Figure 43).** Verify that the power connection is made to ensure that the stereo will operate properly. For any long-term storage of the CIC Powerbox<sup>TM</sup>, please disconnect this power connection to the Rockbox Stereo.

**1.** Turn Switch # 4 "ON", the switch adjacent to the AUX icon (Figure 44). The auxiliary should begin operating.









**Note:** If the auxiliary system does not operate, please make sure to turn "ON" the device's individual power button. (i.e.: stereo power switch "ON")

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2. Turn Switch # 4 "OFF" if your test was successful.

**Note:** If your CIC Powerbox<sup>™</sup> has more than one auxiliary system (for example, a stereo and an LED strobe) the secondary auxiliary switch will normally be located on the passenger side of the CIC Powerbox<sup>™</sup> next to the auxiliary air hose coupler and may be facing the driver side of the CIC Powerbox<sup>™</sup> (Figure 45). The

switch may also be located on the lid for easy access or in the general vicinity of the master switch control panel. Test the second auxiliary switch in the manner as previously described.

To Test a Second AUX Switch:

- **3.** Turn "ON" the second auxiliary switch. The second device should power "ON" and operate properly.
- 4. Once both functions have been tested, turn "OFF" all auxiliary switches.

**Note:** Always make sure that the Rockbox stereo powered antenna is completely retracted prior to closing the CIC Powerbox<sup>™</sup> lid.

Digital Volt Meter (DVM) / Switch # 5 (#4 on Chest):

**!CAUTION!:** Before leaving the CIC Powerbox<sup>™</sup> inactive for an extended period of time, please make certain your CIC Powerbox<sup>™</sup> state of charge is 12.5 volts or more. Always keep your CIC Powerbox<sup>™</sup> battery charged to the highest possible voltage and never store your system for more than 6 months without checking your battery system's state of charge. See Owner's Manual for complete storage and non-use information.





- 1. Turn "ON" Switch # 5 on the Crossover Model (Figure 46) or #4 on the Chest Model (Figure 47), the switch adjacent to the Battery icon.
- 2. The DVM will show the nominal voltage of your CIC Powerbox<sup>™</sup> battery and the fuel gauge will show the reserve capacity power level of your CIC Powerbox<sup>™</sup> battery system. For the most accurate reading, please make sure all other CIC Powerbox<sup>™</sup> control switches are in the "OFF" position.
- 3. Turn "OFF" Switch # 5.

#### Vehicle Connection Control Module:

The Vehicle Connection Control Module controls the connection between the CIC Powerbox<sup>™</sup> and the vehicle's electrical system. When in the normal "CHARGE POSITION," the CIC Powerbox<sup>™</sup> will automatically connect to the vehicle's battery when the vehicle's engine is running. The override or emergency "JUMP START POSITION" feature overrides the automatic connect/disconnect and creates a hard link between the CIC Powerbox<sup>™</sup> and the vehicle's battery allowing you to perform a cable-free jump start of the vehicle (Figure 48), (See Owner's Manual for more Information).



This switch box control panel can normally be found in the switch panel saddle box on the Crossover models and on the interior lid of the CHEST model.

- 1. Locate the Vehicle Connection Control Module and locate the slide switch.
- 2. Verify that the slide switch is in the normal "Charge Position".
- **3.** Turn "ON" DVM Switch # 5 and check the voltage reading.
- 4. Switch the slide switch on the Control module to "Emergency Jump Start".
- **5.** If you listen closely, you should hear a metal latching sound down inside the CIC Powerbox<sup>™</sup>.
- **6.** Monitor the DVM reading for any variation to indicate that your vehicle battery is now connected to your CIC Powerbox<sup>™</sup> internal battery.
- 7. If your vehicle battery was dead/low, you would now be able to Jump Start your vehicle simply by turning your vehicle ignition key.
- 8. If for any reason you still cannot start your vehicle, you can attempt to Jump Start your vehicle using your supplied Boost Jump Cables. See Owner's Manual.
- **9.** Switch the Vehicle Connection Control Module slide switch back to its normal operating position "Charge Mode".
- 10. Turn "OFF" DVM Switch # 5.

### Optional External Speed Charger:

If you have purchased the optional Speed Charger system (Figure 49), then you can also charge your CIC Powerbox<sup>™</sup> through an AC Electrical wall outlet by connecting the DC charge cables of the Speed Charger to the built-in matching hook up wires found inside your CIC Powerbox<sup>™</sup> (Figure 50). See your CIC Powerbox<sup>™</sup> Owner's Manual for charging instructions, precautions, and hazards.





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The optional Speed Charger also comes with alligator style connecting clamps so that you can charge any 12-volt battery/battery system. See the Speed Charger specifications and operating manual for full capabilities and safety instructions.



### Key Locks:

Insert the key into the slot and turn a quarter turn to engage the lock. Please use white lithium lubricant for gears and latching mechanism as needed.

**Note:** Key locks on the CIC Powerbox<sup>™</sup> Crossover model **(Figure 50)** are individual and both latches must be locked individually to ensure security.

### Side Indicator Lights:



Some select CIC Powerbox<sup>™</sup> Crossover models feature red external "ON" indicator LEDs mounted near the Key Lock Latches on both sides. These lights illuminate to notify the user that one of the control switches on your CIC Powerbox<sup>™</sup> is active and in the "ON" position. Before closing your CIC Powerbox<sup>™</sup> lid, please turn "OFF" all switches until the Latch indicator LED lights have gone "OFF". **(Figure 51)** 

## WHEREVER YOU GO, GO WITH POWER®

### CONTACT CIC POWERBOX LLC WITH ANY QUESTIONS

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