

## TECHNICAL SPECIFICATIONS

### DIMENSIONS

Base 1 5/8" (4cm) x 2 1/4" (5.5cm), Height (including control knob) 2 1/2" (6cm), Brackets 1 1/4" (3.5cm) x 5/8" (1.5cm) x 1/8" (3mm).

### WEIGHT

Battery Brain 175gm, Accessories 280 gm, Packaging 3gm. Total weight 408gm (1lb).

### CURRENT CONSUMPTION

Normal operation mode 10 Milliamps. Current drawn for ignition: up to 1100 Amps. Current in normal operation mode 250 Amps. Disconnect depending on Battery Model being used 6V, 12V, 24V or 48V.

### OPERATIONAL TEMPERATURE RANGE

-60°F (-51°C) to 200°F (90°C). Battery Brain is made of non-combustible materials.

### LIMITED WARRANTY

Your Battery Brain™ is covered by a conditional, limited warranty to the original purchaser.

This unit is guaranteed to the original retail purchaser against defects in quality or workmanship for a period of two years from the date of original purchase. If this unit fails because of a manufacturing defect within 30 days of purchase, return the unit, with your receipt, to the retailer. After 30 days of purchase, but within the warranty period, if the unit was purchased within the continental United States, return it, freight prepaid, to Battery Brain for repair or replacement. If the unit was purchased outside the continental United States, return the unit to the place of purchase.

This warranty does not cover damage due to operation other than the use of the correct Battery Brain model on the specified battery voltage, 6V, 12V, 24V or 48V respectively. This warranty does not extend to any defect, malfunction, or failure caused by accidents, misuse, abuse, improper installation (including disassembly of Battery Brain, use of the product with equipment for which it was not intended, or unauthorized alterations or repairs.

All implied warranties are hereby limited in duration to the period of two years from the date of original retail purchase. Incidental or consequential damages arising from a breach of either express or implied warranties are hereby disclaimed and excluded. Some states do not allow the exclusion of limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

Neither Battery Brain nor retailers selling Battery Brain are responsible for indirect, incidental, special, punitive or consequential damages arising from the use of or inability to use Battery Brain. Except for this limited warranty, Battery Brain has not made, and specifically disclaims, any warranty or representation of any kind, express or implied, direct or indirect, of product fitness for a particular purpose.

Assembled in China for Battery Brain.

### ⚠ BATTERY SAFETY ⚠

**WARNING!** When working with lead acid batteries and accessories, caution must be employed:

- + Shield eyes. Do not open vent caps or puncture battery casing in any way.
- + Sulfuric acid can cause blindness and severe burns.
- + Rinse hands and flush eyes with water immediately.
- + Avoid sparks, flames and smoking.

#### PROPOSITION 65 WARNING

Battery posts, terminals, and related accessories contain lead and lead compounds. Chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

## ADVANCED INSTALLATION FOR ALL MODELS

You may wish to consult your auto mechanic for Advanced Installation.

**GENERAL:** Using these installations you can **A)** save settings on radio, clock, computer and other units. Or **B)** disable the Battery Brain connection when the engine is running, even when voltage drops below 12 volts.

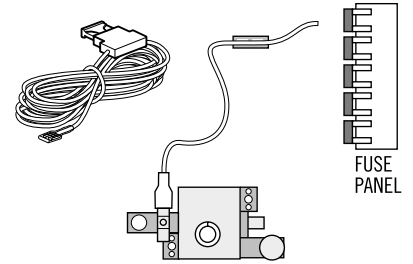
### ACCESSORY BYPASS WIRE INSTALLATION

1. Slide the connector end of the bypass wire onto the Butterfly Connector on the Battery Brain.
2. Locate the vehicle's fuse box and the desired fuse (radio, clock, etc.).
3. Remove fuse and insert it into the fuse connection in the bypass wire.
4. Connect the exposed end of the bypass wire into the fuse box to activate the device.

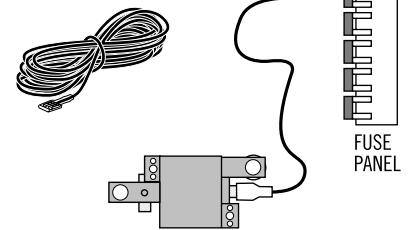
### DISABLING CONNECTION / ENGINE ON WIRE INSTALLATION

1. Locate a fuse in the fuse box that has current when the engine is turned on and no current when the engine is turned off.
2. Remove fuse.
3. Connect the exposed end of the bypass wire into the fuse box.
4. Slide the connector end of the bypass wire onto the single connector on the negative side of the Battery Brain.

### ACCESSORY BYPASS WIRE INSTALLATION



### DISABLING CONNECTION / ENGINE ON WIRE INSTALLATION



## TROUBLE SHOOTING

### AFTER INSTALLATION, THE BATTERY BRAIN DOESN'T SEEM TO BE WORKING.

#### WHAT TO DO

1. Be sure your battery is holding the proper charge, 6-volt, 12-volt, 24-volt or 48-volt depending on the battery you have.
2. Make sure the positive side of the Battery Brain is attached to the positive (+) post of the battery.
3. Check that the black ground wire is securely attached to the negative (-) post clamp bolt or to a metal screw on the chassis.
4. Check that the Manual Reset Control Knob is pointing to one of the "ON" positions.

### AFTER THE BATTERY BRAIN HAS DISCONNECTED POWER, THE REMOTE CONTROL DOES NOT RESET THE POWER.

#### WHAT TO DO

1. Make sure that the light on the Remote Control is lit when you press the button down. If the light does not come on, open the Remote Control and replace the battery.
2. Hold the Remote Control button down for five (5) seconds to activate Battery Brain.
3. Turn the Manual Reset Control Knob to "ON".

### BATTERY BRAIN IS FREQUENTLY DISCONNECTING POWER FOR NO APPARENT REASON.

#### WHAT TO DO

1. Your car battery may be low in power due to Alternator function. If it cannot hold a charge, it may be at the end of its life cycle.
2. The vehicle might have an unknown shortage in the electrical system. Consult your auto mechanic.
3. Make sure all interior lights are off (headliner light, trunk, under-hood, etc.).
4. Disconnect all accessory electronics (radio, phone charger, DVD player, etc.) and check again.

### YOU CANNOT DETERMINE A BATTERY BRAIN INSTALLATION CONFIGURATION FOR YOUR VEHICLE OR LOCATE BATTERY CONNECTIONS.

#### WHAT TO DO

1. Consult your auto mechanic.

[www.batterybrain.com](http://www.batterybrain.com)

Smart Energy Solutions, Inc. 207 Piaget Avenue Clifton, N.J. 07011 USA  
T: 973.340.6000 F: 973.340.7080 E: sales@batterybrain.com

**BB**  
BATTERYBRAIN

# BATTERY BRAIN INSTALLATION INSTRUCTIONS

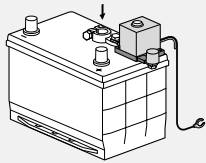


The Battery Brain is a device designed to protect a vehicle's lead acid battery (6-Volt, 12-Volt, 24-Volt, and 48-Volt) from being drained of power below the level needed to restart the vehicle's engine.

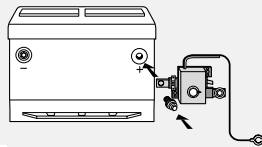
**STEP 1: Disconnecting Battery Cables:** **A)** Disconnect the black/negative (-) cable from the negative (-) battery post/bolt on the battery. **B)** Disconnect the red/positive (+) cable from the positive (+) battery post/bolt on the battery.

**STEP 2: Connecting Battery Brain:** With the Battery Brain in the "OFF" position, connect the positive (+) clamp on the positive (+) side of the Battery Brain to the positive (+) battery post/nut.

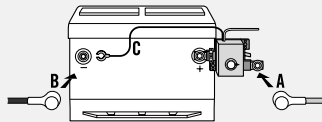
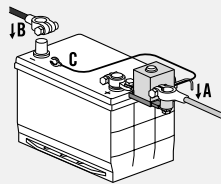
## TOP MOUNTING OPTION



## SIDE MOUNTING OPTION

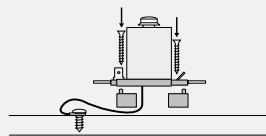
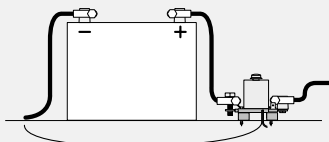


**STEP 3: Connecting Battery Cables and Ground:** **A)** Connect red/positive (+) battery cable to the copper post (or Side Mount bolt) on the outer bracket on the Battery Brain. **B)** Connect the black/negative (-) battery cable to the negative (-) post/bolt on the battery. **C)** Connect the clip end of the black ground wire to the clamp bolt on the negative (-) battery post/nut or ground to chassis with a metal screw.



**INSTALLATION COMPLETE:** THE MANUAL RESET CONTROL KNOB ON THE BATTERY BRAIN UNIT SHOULD BE TURNED TO ONE OF THE "ON" POSITIONS. THEN PRESS DOWN ON THE MANUAL RESET CONTROL KNOB TO ESTABLISH CONTACT.

## CHASSIS MOUNTING



**A)** Connect the positive (+) side of the Battery Brain to the positive (+) side of the battery with the red extension cable (purchase separately). **B)** Connect the original positive (+) cable of the car to other side of the Battery Brain. **C)** Connect the black ground wire of the Battery Brain to the chassis.

## BATTERY BRAIN

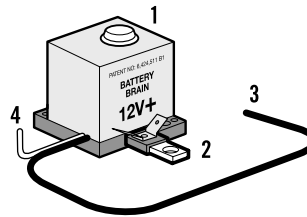
**GENERAL:** The Battery Brain is installed on the positive (+) battery post with the post clamp provided. The clip end of the black ground wire is fastened to the negative (-) post clamp bolt.

**HELPFUL HINT:** The positive (+) bracket on the Battery Brain for the positive (+) post clamp is on the same side of the Battery Brain unit with "12V+" printed on it.

**TOOLS REQUIRED:** Open-end 9/16" or adjustable wrench. Standard and Phillips screwdrivers.

**IMPORTANT NOTE:** Before beginning installation, be sure your battery is holding the proper charge. If your battery does not hold a minimum charge, it may be at the end of its lifecycle.

## BATTERY BRAIN KIT INCLUDES



### BATTERY BRAIN UNIT:

1. Manual Reset Control Knob
2. Positive (+) side of Battery Brain with Butterfly Connector
3. Black Ground Wire
4. Antenna



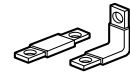
Positive Clamp, Bolt and Flat Washer



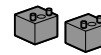
Copper Positive Post with Bolt and Lock Washer



Side Mount Bolt



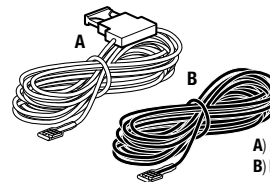
L-Bracket and Straight Bracket



Chassis Mounting Blocks



Remote Control (Type II and III models only)



**A)** Accessory Bypass Wire (Available on all models)  
**B)** Engine On Bypass Wire (Available on Type II and III models)

## OPERATING INSTRUCTIONS

1. **TO TEST SUCCESSFUL SYSTEM INSTALLATION:** Start the engine after installation is complete.
2. **TO TEST BATTERY BRAIN OPERATION:** Turn the engine off and turn on as many electrical accessories (such as headlights, windshield wipers, radio, telephone charger, DVD player, etc) as possible and leave them on. The Battery Brain will cut power from the battery automatically – confirming the Battery Brain is working. This may take some time, depending on the battery's age and charge.
3. **TO TEST THE MANUAL RESET CONTROL FUNCTION:** Ensure that the Manual Reset Control Knob is in the "ON" position and press it down after the Battery Brain has disconnected the power (to reset). The unit should reestablish power to the electrical accessories and enable vehicle starting.
4. **TO TEST THE REMOTE CONTROL UNIT (BATTERY BRAIN II):** The remote control unit supplied with Battery Brain Type II models can be used to reconnect and reestablish power after it has been disconnected by Battery Brain due to draining. Press the remote control button to reestablish power to the electrical accessories and enable vehicle starting.
5. **TO TEST THE REMOTE CONTROL UNIT (BATTERY BRAIN III):** The remote control unit supplied with Battery Brain Type III models can be used to disconnect and reconnect power by choice (as an anti-theft device), as well as reestablishing power after draining. Press the remote control button to disconnect, reconnect or reestablish power to electrical accessories and for vehicle starting.

If you have to leave your vehicle at the side road with Emergency lights on turn the KNOB TO THE OFF POSITION.

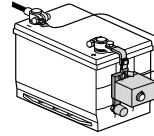
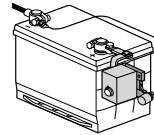
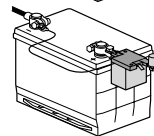
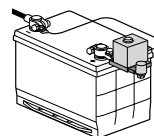
If problems occur with any of the test procedures, please refer to Trouble Shooting Instructions or consult Battery Brain technical support (phone or email).

**IMPORTANT NOTE:** If a warning light for NO CHARGE or BATTERY WARNING illuminates on your vehicle dashboard, stop your vehicle at a safe area and TURN THE MANUAL RESET CONTROL KNOB (located on the Battery Brain unit itself) TO ONE OF THE "OFF" POSITIONS. Your vehicle will experience a complete loss of power unless the "No Charge" problem is repaired immediately! This problem is unrelated to the Battery Brain and requires assistance from an Auto Technician.

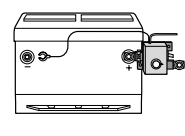
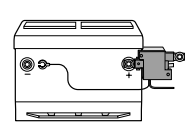
## SAMPLE CONFIGURATION OPTIONS

Because battery location and position differ in vehicles, you can configure the Battery Brain installation for different Top Mount and Side Mount positions.

### TOP MOUNTING



### SIDE MOUNTING



### CHASSIS MOUNTING

