"Battery Prog Brain" the programmable ERD unit.

Installation Instructions

Battery Prog Brain

This unit has the ERD feature (Engine Running Detection). Then detecting electronic noises the BPB will be in a standby mode, it will not disconnect the power even when the battery energy is lower than the disconnecting threshold.

IMPORTANT NOTE: After installation, test the ERD function to make sure your vehicle electronic noises are detected, if not then you need to connect the “engine on” wire (see “Engine On” wire instructions)

What is the “Battery Prog Brain” (BPB)
Battery Prog Brain is an innovative accessory that easily installs to any battery. Using unique micro-electronic technology it continually monitors the battery power. When Battery Prog Brain detects power falling below the threshold level required to start your engine, it automatically isolates the battery from the electrical system. This will ensure the battery always have enough power to start your engine and will prolong the battery life. There are a few ways to reset the power according to the type of BPB you have purchase.

*Type III & IV (Gold) have the ability to disconnect the battery from the electrical system intentionally and to act as an anti-theft device.
*Type IV RV (Utility) is designed to extend battery life by protecting utility/house/coach batteries rather than the vehicle starting battery and can disconnect the battery from the electrical system intentionally to preserve battery power when not in use.

Updates to installation instructions will be posted on www.batteryprogbrain.com
Technical Specifications

This unit has the ERD feature (Engine Running Detection).
Then detecting electronic noises the BPB will be in a standby mode, it will not disconnect the power even when the battery energy is lower than the disconnecting threshold.

IMPORTANT NOTE: After the installation is completed test the ERD function to make sure your vehicle electronic noises are detected, if not than you need to connect the "engine on" wire to the ACC connector (see Engine On wire instructions)

DIMENSIONS

Base 1 5/8” (4cm) x 2 1/4” (5.5cm), Height (including removable protective cap) 2 1/2” (6cm), Brackets 1 1/4” (3.5cm) x 5/8” (1.5cm) x 1/8” (3mm).

WEIGHT

Battery Prog Brain 220 gm, Accessories 210 gm, Packaging 145 gm;
Total weight 575gm (1.3lb).

CURRENT SPECIFICATIONS

Operational Voltage: 9V to 28V 3 Milliamps
Operational Current Consumption for type I & IV After disconnect: 100 Micro amps
Maximum Amperage: 1100 Amps, for 15 consecutive seconds.
Continuous Amperage Capacity: 250 Amps.
Disconnect Voltage Threshold Preset 11.8V with a time delay of 30 seconds (This unit is programmable and can be set differently by using STRSEnergy Programmer)

Type IV RV Disconnect Voltage Threshold for: 10.5V with a time delay of 30 seconds (This unit is programmable and can be set differently by using STRSEnergy Programmer)

OPERATIONAL TEMPERATURE RANGE

-40°F (-40°C) to 257°F (125°C).
Battery Prog Brain is made of non-combustible and none flammable materials.

Water proof: IP 68

The Battery Prog brain is designed for 25,000 cycles.

Battery Prog Brain

GENERAL: The Battery Prog 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 or to the grounded Chassis.

HELPFUL HINT: The positive (+) side of the Battery Prog Brain is the side printed.

TOOLS REQUIRED: Tools required may vary based on your vehicle. The most common tools are; Open-end 5/16”, 9/16”, 10mm, 12mm,14mm, 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 (over 12V) it may be at the end of its lifecycle. The Battery Prog Brain is designed to protect a properly functioning battery. It cannot restore or repair a damaged battery. If your vehicles battery shows any signs of physical damage such as swelling, leaking or cracking, replace the battery prior to installing Battery Prog Brain.

IMPORTANT NOTE: Unless you are fully familiar with your vehicles electrical system it is recommended that installation of this product is performed by a certified technician.

IMPORTANT NOTE: This product is not intended for Marine use and should not be submerged in water. Units specifically designed for Marine use are available, see www.batteryprogbrain.com for more information.
Battery Prog Brain Kit includes

**BATTERY PROG BRAIN UNIT:**

1. Manual “ON/OFF” Reset Control Knob under removable protective cap
2. Positive (+) side of Battery Prog Brain (side with writing) with Butterfly Connector
3. Black Ground Wire, attached to unit
4. White Antenna Wire, attached to unit (type II & III only)

**Type IV Only** - This unit has the same remote capacities as the type III, but uses a push button instead of a remote control, to change the position of the Battery Prog Brain (power connected/disconnected) press the push button. The button can be mounted/concealed anywhere in the vehicle and is connected to the Battery Prog Brain unit via a wire.

**Type IV RV** looks like the type IV model but is designed to be connected to the utility/house/coach batteries in order to avoid deep discharge which can prematurely end a batteries life.

Mount the push button in the desired location by tightening the nut provided.
Remote Control Silver-Remote reconnection (Type II) & Gold-Remote/Anti-theft (Type III) Models Only

Remote Control Frequency: TX433.92 Mhz
Battery Type: 12 V 27 A (The batteries are already installed)

Red Accessory Bypass Wire with Fuse Holder
Black Engine On Wire

Optional:
Vibration Sensor - Available separately, can be used in place of the Engine On Wire
*(See your retailer for details)

Installation Instructions

NOTE: Battery location and position differ in vehicles. With the supplied accessories you can mount the Battery Prog Brain on the vehicle using the Top Mount, Side Mount or Chassis Mount positions.

NOTE: After installation ensure all connections are tight. Ensure manual reset control knob under the protective cap is in the on position. Press down on the knob to establish connection.

Sample Configuration Options
Top Mounting Options

Side Mounting Options

Chassis Mounting Option
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 the Battery Prog Brain:
A) Unscrew removable protective cap on the top off the unit and turn the “ON/OFF” manual reset control knob to the “ON” position.
B) For top mount battery: Connect the positive (+) female clamp with the butterfly connector to the positive (+) side of the battery. Connect the Battery Prog Brain to the female clamp.
C) Connect the male post to the other side of the Battery Prog Brain (with no print on it). Connect the red positive battery cable to the male post.
D) Side mount only: Connect the positive side of the Battery Prog Brain (with the sign) to the positive post on the battery using the provided side mount screw. Then screw in the red positive battery cable to the other side of the Battery Prog Brain.

NOTE: The positive battery post is tapered. Verify that the cable is mounted correctly.

STEP 3:
Connecting Battery Prog Brain to Ground:
A) Connect the black/negative (−) battery cable to the negative (−) post/bolt on the battery.
B) Connect the clip end of the black ground wire to the clamp bolt on the negative (−) battery post/nut or to grounded bolt.

CHASSIS MOUNTING
A) Connect the positive (+) side of the Battery Prog Brain to the positive (+) side of the battery with a separate red positive battery cable (must be purchased).
B) Connect the original red positive (+) cable of the car to other side of the Battery Prog Brain.
C) Connect the black ground wire of the Battery Prog Brain to the chassis or directly to the negative post of the battery.
STEP 4:

Install Black Engine On Wire. (Not required if ERD tested OK)

Installation of the Engine On Wire will prevent the Battery Prog Brain from disconnecting the battery while the engine is running. This will also prevent the Battery Prog Brain from disconnecting the battery if the voltage level drops below 11.8V as could be the case with accessories that briefly reduce the voltage below the threshold level or in the case of problems with the vehicle electrical components. i.e. bad alternator.

This wire must be installed to ensure the Battery Prog Brain will not disconnect the power while the engine is running. (Not required if ERD tested OK)

*Not required if optional Vibration Sensor is used. (Purchased separately).

A) Locate a wire or fuse that has 12V when the ignition switch is in the “ON” or “RUN” position and is 0V when the ignition switch is in the “OFF” position.

B) Slide the connector end of the black engine on wire onto the single connector on the Battery Prog Brain that is labeled with “ACC”.

C) Attach the other end of the supplied black engine on wire to the selected wire or fuse as located in step A above. This may require running a wire to the interior of the vehicle. A fuse-tap or wire-tap connection may be required.

STEP 5:

Optional: Red Accessory Bypass Wire Installation

Installation of the red accessory bypass wire will provide you with continuous 12V power to an accessory or accessories bypassing the Battery Prog Brain, designed to allow you to save presets or memory settings.

NOTE:

Use of this feature will bypass the Battery Prog Brain and may allow the battery voltage to drop below the minimum charge needed to startup your vehicle.

NOTE:

Exact location of the fuse & fuse panel will differ by manufacturer; consult your owner’s manual or wiring schematic for the vehicle to locate fuses for the accessories. Amperage for the bypassed accessory must not exceed 7.5Amps.

A) Locate the fuse that provides power only to the accessory that you wish to have it active at all times.

B) Attach the exposed end of the red bypass wire to the fuse or device you wish to have active on the non active side of the fuse. A fuse tap connection may be required.

C) Carefully route the wire from the fuse to the Battery Prog Brain. A fuse-tap or wire-tap connection may be required.

D) Attach the connector end of the red bypass wire onto the butterfly connector on the female positive post of the Battery Prog Brain.
If your vehicle has a multi-battery configuration, Battery Prog Brain can be mounted to any battery configuration. However, any primary live positive battery post must have its own Battery Prog Brain. Consult a certified technician if you require assistance.

If the two or more batteries are connected in Parallel, to one primary red positive cable, then only one Battery Prog Brain is required. Follow the installation instructions as previously stated.

If two or more batteries are connected in parallel, two primary red positive cables, then you will require two Battery Prog Brains, to ensure that the batteries are effectively isolated from the electrical system once the disconnection threshold is reached. Mount both Battery Prog Brains at the primary positive posts connected to the Starter, Alternator, ECM or any accessory device that requires electrical power.

Installation Tip: Remote Location: If you wish to mount the Battery Prog Brain in a remote location due to space limitations, or if desired, use proper battery cable. (Additional cable not supplied)

Series configuration options shown for example purposes only.

**SAMPLE CONFIGURATION OPTIONS**

<table>
<thead>
<tr>
<th>2 BATTERIES</th>
<th>3 BATTERIES</th>
<th>4 BATTERIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="2 Batteries Diagram" /></td>
<td><img src="image2.png" alt="3 Batteries Diagram" /></td>
<td><img src="image3.png" alt="4 Batteries Diagram" /></td>
</tr>
</tbody>
</table>

**INSTALLATION COMPLETE:**

THE MANUAL RESET CONTROL KNOB ON THE BATTERY PROG BRAIN UNIT SHOULD BE TURNED TO THE “ON” POSITION. THEN PRESS DOWN ON THE MANUAL RESET CONTROL KNOB TO ESTABLISH CONTACT.
Testing the Installation

A) TO TEST FOR SUCCESSFUL INSTALLATION:
Start the engine after installation is complete. If the engine starts properly proceed to the next step. If not, review the installation instruction or consult a certified technician.

B) TO TEST BATTERY PROG BRAIN OPERATION:
With the Manual Reset Control Knob in the “ON” position turn the engine off and turn on as many electrical accessories (i.e. lights, radio, and wind shield wipers) as possible and leave them on. The Battery Prog Brain will cut power from the battery automatically – confirming the Battery Prog Brain is working. This may take some time, depending on the battery’s age and state of charge.

C) 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 Prog Brain has disconnected the power (to reset). The unit should reestablish power to the electrical accessories and enable you to start the engine.

D) TO TEST THE REMOTE CONTROL UNIT / WIRED REMOTE BUTTON UNIT (BATTERY PROG BRAIN III & IV):
The remote control unit supplied with Battery Prog Brain Type III and the wired remote button supplied with the Battery Prog Brain IV can be used to disconnect and reconnect power by choice (as an anti-theft device), as well as reestablishing power after draining. Press and hold for 4 consecutive seconds either the remote control button or mounted switch to disconnect, reconnect or reestablish power to electrical accessories and to start the engine.

E) TO TEST THE ERD FUNCTION.
Start the engine, press the remote control/push button and hold for 10 seconds
If the power was not disconnected the ERD works OK, if the power has disconnected The ERD do not detects the electronic noise
You need to connect the “engine on” wire.

If problems occur with any of the test procedures, please refer to Trouble Shooting Instructions or consult Battery Prog Brain technical support.
**Trouble Shooting**

AFTER INSTALLATION, THE BATTERY PROG BRAIN DOESN’T SEEM TO BE WORKING.

WHAT TO DO

1. Be sure your battery is holding the proper charge.
2. Make sure the positive side of the Battery Prog Brain (the printed side) is attached to the positive (+) post of the battery.
3. Check that the Manual Reset Control Knob is pointing to the “ON” position.
4. Check that the black ground wire is securely attached to the negative (-) post on the battery.

AFTER THE BATTERY PROG 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 seconds to activate Battery Prog Brain.
3. Turn the Manual Reset Control Knob to “ON”.
4. Check that the black ground wire is securely attached to the negative (-) post on the battery.

BATTERY PROG 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 electrical system might have an unknown short. Consult a certified technician.
3. Make sure all lights are off.
4. Disconnect all accessory electronics (radio, phone charger, DVD player, etc.) and check again.

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

WHAT TO DO

1. Consult a certified technician.

IMPORTANT NOTE:

If a warning light for NO CHARGE or BATTERY WARNING illuminates on your dashboard, stop your vehicle at a safe area and TURN THE MANUAL RESET CONTROL KNOB (located under the removable protective cover on the Battery Prog Brain unit itself) TO THE “OFF” POSITION. Your vehicle will experience a complete loss of power unless the “No Charge” problem is repaired immediately! This problem is unrelated to the Battery Prog Brain and requires assistance from a qualified technician.
**Limited Warranty**

Your Battery Prog 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 STRSEnergy Inc. 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 Prog Brain model on the specified battery voltage. This warranty does not extend to any defect, malfunction, or failure caused by accidents, misuse, abuse, improper installation (including disassembly of Battery Prog 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 STRSEnergy, Inc. nor retailers selling Battery Prog Brain are responsible for indirect, incidental, special, punitive or consequential damages arising from improper installation, the use of or inability to use Battery Prog Brain. Except for this limited warranty, STRSEnergy, Inc. 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

**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.