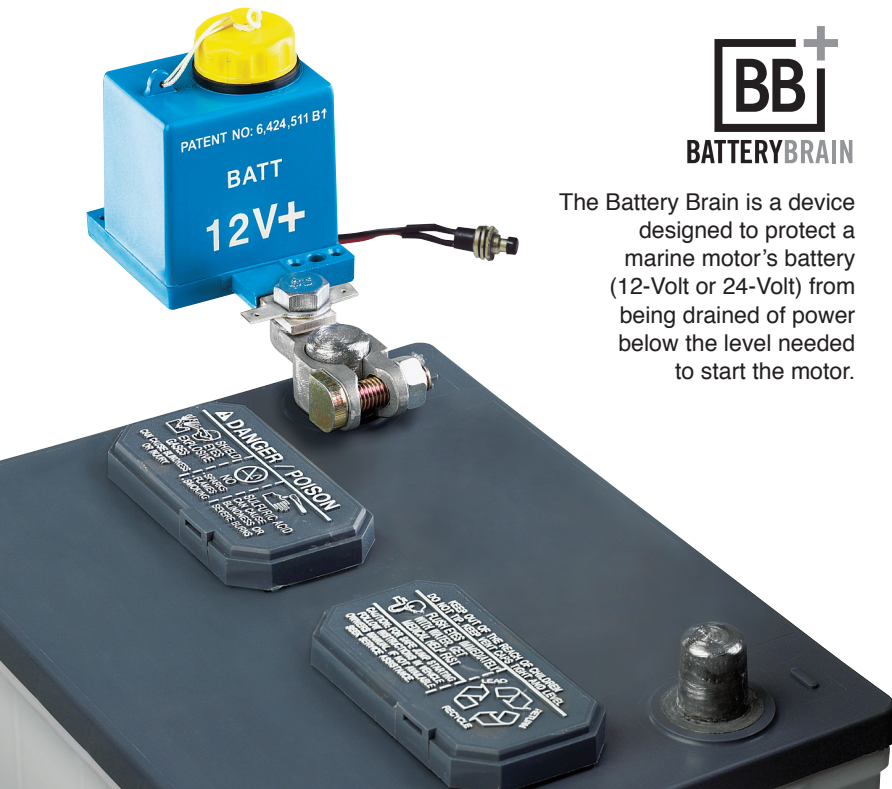


Installation Instructions



BATTERYBRAIN

The Battery Brain is a device designed to protect a marine motor's battery (12-Volt or 24-Volt) from being drained of power below the level needed to start the motor.



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 280gm, 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 12V or 24V.

OPERATIONAL TEMPERATURE RANGE

-60°F (-51°C) to 200°F (90°C).

Battery Brain is made of non-combustible materials.

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.

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”, 14mm, 17mm or adjustable wrench. Standard and Phillips screwdrivers.

REMOTE CONTROL USERS:

Save a copy of the identification number on the back of your remote control. You will need it to order a replacement if lost.

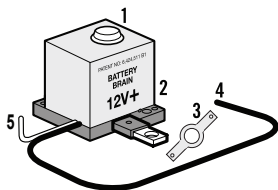
IMPORTANT NOTE:

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 under screwtop
2. Positive (+) side of Battery Brain (side with writing)
3. Butterfly Connector
4. Black Ground Wire, attached to unit
5. White Antenna Wire, attached to unit



TYPE IV ONLY

This unit has the same capabilities as Type III, but uses a mounted push button switch instead of a remote control to change the setting of the Battery Brain with the press of a button. The switch can be mounted / concealed anywhere in the vessel and is connected to the BB unit by a wire.

Do not press the button while the motor is running. Mount the push button switch in the desired location by tightening the nut provided.

Positive Clamp,
Bolt and Flat Washer



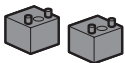
Aluminum Positive Post
with Bolt and Lock Washer



Side Mount Bolt

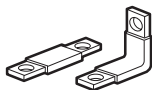
Butterfly Connector





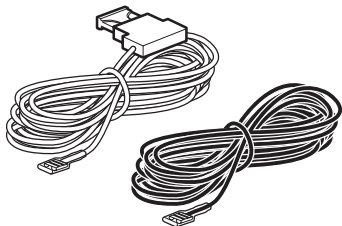
Chassis Mounting Blocks

L-Bracket and
Straight Bracket



Remote Control
(Type III model only)

Extra Battery included
(Type III model only)



- A) Red Accessory Bypass Wire With Fuse Holder.** If bilge pump is not hard wired, this wire is recommended to be used.
- B) Motor On Bypass Wire**

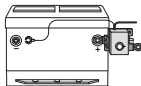
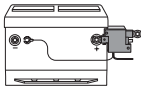
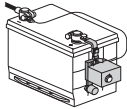
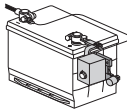
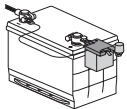
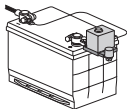
Installation Instructions

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

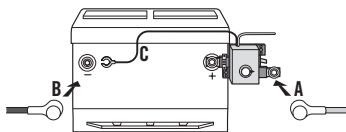
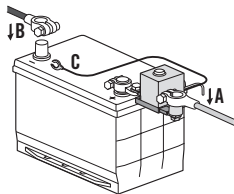
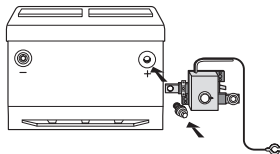
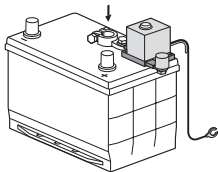
Top Mounting Option



Side Mounting Option

Sample Configuration Options

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



STEP 2:

- A)** Unscrew the positive (+) clamp bolt and washer and attach the butterfly connector between the washer and bolt.
- B)** Connect the positive (+) clamp and the butterfly connector to the positive (+) side (side with writing) of the Battery Brain.
- C)** Connect the positive (+) clamp to the positive (+) post of the battery.
- D) TOP MOUNT ONLY** - Connect the positive (+) post to the side of the Battery Brain without writing, with the copper bolt on top.

STEP 3:

Connecting Battery Cables and Ground:

- A)** Connect the red/positive (+) battery cable to the copper post (or Side Mount bolt) on the outer bracket of 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.

STEP 4:

Red Accessory Bypass Wire

If bilge pump is not hard wired, this is the recommended wire to be used. If wire is not used for the bilge pump, it may be used for any accessory.

- A)** Slide the connector end of the bypass wire onto the butterfly connector on the female positive post of the Battery Brain.
- B)** Locate the motor's fuse box and the desired fuse.
- C)** Remove fuse and insert it into the fuse connection in the bypass wire.
- D)** Connect the exposed end of the bypass wire into outbound leg of the fuse box to activate the device.

ALTERNATE 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 vessel to other side of the Battery Brain.
- C)** Connect the black ground wire of the Battery Brain to the negative side of the battery.

Advanced Installation

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

The bilge pump is a required bypass when installing the Marine Battery Brain and the only one recommended.

GENERAL: (Additional accessory bypass wire not included) Using these installations you can A) save settings on electronic marine accessories Or B) disable the Battery Brain connection when the motor is running, even when voltage drops below 12.1 volts.

ACCESSORY BYPASS WIRE INSTALLATION

1. Slide the connector end of the bypass wire onto the butterfly connector on the female positive post of the Battery Brain.
2. Locate the motor's fuse box and the desired fuse (navigation equip, lights, 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.

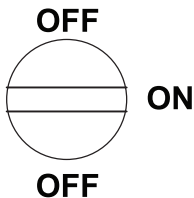
DISABLING CONNECTION / MOTOR ON WIRE INSTALLATION

1. Locate a fuse in the fuse box that has current when the motor is turned on and no current when the motor 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.

***We recommend that the bilge pump be connected at all times.**

INSTALLATION COMPLETE:

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



1. TO TEST SUCCESSFUL SYSTEM INSTALLATION:

Start the motor after installation is complete.

2. TO TEST BATTERY BRAIN OPERATION:

Turn the motor off and turn on as many electrical accessories (i.e. lights, radio,) 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 you to start the motor.

4. TO TEST THE REMOTE CONTROL UNIT / MOUNTED SWITCH UNIT (BATTERY BRAIN III & IV):

The remote control unit supplied with Battery Brain Type III and the mounted switch button supplied with the Battery 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 motor.

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

AFTER INSTALLATION, THE BATTERY 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 Brain (the side with the writing) 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 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 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 BRAIN IS FREQUENTLY DISCONNECTING POWER FOR NO APPARENT REASON.

WHAT TO DO

1. Your marine 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 your marine mechanic.
3. Make sure all lights are off.
4. Disconnect all accessory electronics (navigation equipment, radio, lights, etc.) and check again.

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

WHAT TO DO

1. Consult your marine mechanic.
2. You may need to use an alternate mount installation.

IMPORTANT NOTE:

If a warning light for NO CHARGE or BATTERY WARNING illuminates on your dashboard, stop your vessel safely and TURN THE MANUAL RESET CONTROL KNOB (located on the Battery Brain unit itself) TO THE “OFF” POSITION. Your vessel 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 a Marine Technician.

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, 12V or 24V 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 Smart Energy Solutions, Inc.

Battery Brain is an innovative marine accessory that easily installs to any battery. Using unique micro-electronic technology it continually monitors the battery power. When Battery Brain detects power falling below the level required to start your engine, it automatically isolates the battery from the electrical system. This will ensure you always have enough power to start your engine and keep moving on the water!



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For more information and other products go to

www.smgynet/batterybrain/