

# INSTALLATION MANUAL

# 52040

## Level of Difficulty

Easy

## Parts List

1	Breakaway switch
1	Battery case
1	Battery charger
1	Battery, 12V 5Ah gel cell
4	Self-tapping screw with hex head washer, 1/4"-14 x 3"
4	Flat washer, 5/16"
4	Nylock nut, 5/16"
2	U-bolt, 5/16"

## Product Registration

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## Battery Charging

If the system measures voltage less than 14V, the charging circuit will provide maximum charging current to a 12V 5Ah gel cell battery until the battery is fully charged to 14V. During the operation, the system provides a trickle charge to maintain battery voltage.

When battery voltage is under 6V, relay K1 will not activate when switch S1 is activated and the whole tester circuit will have no power and will not activate either the green or red LED. This will indicate a dead battery.

This breakaway kit is designed to activate the trailer's electric brakes if the trailer should disconnect while towing, bringing the trailer to a safe stop. Breakaway kits are required when towing trailers of 3,000 lbs. GTW or greater.

**Note:** Your trailer must be equipped with electrical brakes in order to use this kit.

## ⚠ WARNING

Do not hook 12V Battery directly to tow vehicle's charge circuit. Direct connection can damage the battery.

## ⚠ WARNING

Never exceed the vehicle manufacturer's recommended towing capacity.

In order to avoid severe damage to the tow vehicle's electric brake controller, disconnect the trailer connector from the tow vehicle prior to testing the breakaway system.

## Product Photo



## ⚠ CAUTION

Do not attach the breakaway switch cable to mounting hooks, trailer safety chains or the trailer ball.

## NOTICE

Before you begin installation, read all instructions thoroughly.

Proper tools will improve the quality of installation and reduce the time required.

To help prevent damage to the product or vehicle, refer to the specified torque specifications when securing hardware during the installation process.

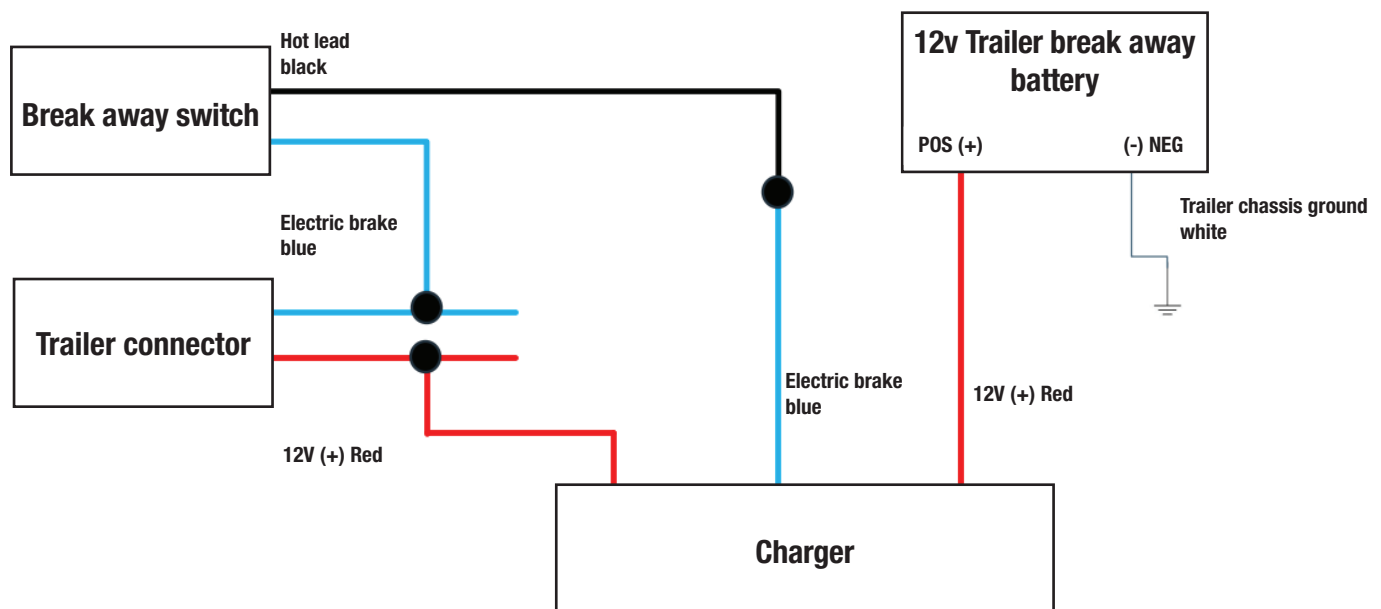
## Maintenance

Prior to each use, check the system's battery for operating voltage. Check that the breakaway switch cables are not damaged from dragging on the ground and that they can move freely.

Check the breakaway system periodically to ensure proper and secure connections. Open and / or short circuits may result in a no-brake situation.

Test the breakaway by pulling firmly on the cable of the breakaway switch. The battery will activate the brakes. **Note:** Do not use this kit as a parking brake. Ensure battery is charged prior to each use.

# WIRING DIAGRAM



## Step 1 - Mounting

Position the breakaway switch on the tongue of the trailer so that it allows the cable to reach the tow vehicle's trailer hitch safety chain eyelets. This is critical for proper engagement of switch.

Identify a suitable mounting location and drill a 9/32" hole in the trailer frame to mount the breakaway switch. Use the provided hardware to mount the switch to the trailer **Note:** Use caution when drilling the hole, making sure there are no wires or other objects behind the drilling surface. Do not to over-tighten the bolt so the breakaway switch can pivot.

Find a suitable location on the trailer frame to mount the battery case. Mount in a location that it does not interfere with the switch's lanyard.

## Step 2 - Wiring

Connect one of the black wires to the breakaway battery's positive (+) terminal.

Splice the other black wire to the blue wire leading to the trailer brakes.

**Note:** The blue wire should show 12V positive when the vehicle brakes are applied.

## Step 3 - Wiring

Splice yellow wire on breakaway box to trailer 12V auxiliary power lead.

Splice white wire of the breakaway box to the white ground wire coming from the trailer side connector.

## Prior to Towing

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Check the breakaway system periodically to ensure proper and secure connections. Open and / or short circuits may result in a no-brake situation.

Test the breakaway by pulling firmly on the cable of the breakaway switch. The battery will activate the brakes. **Note:** Do not use this kit as a parking brake. Ensure battery is charged prior to each use.

### CAUTION

Do not attach the breakaway switch cable to mounting hooks, trailer safety chains or the trailer ball.

### WARNING

In order to avoid severe damage to the tow vehicle's electric brake controller, disconnect the trailer connector from the tow vehicle prior to testing the breakaway system.