



TRAILER PARTS PRO BREAKAWAY KIT INSTALLATION INSTRUCTIONS

Trailer Parts Pro Breakaway Kit, 5 Amp, Cable Switch & Pin, Side Load, Standard, (BA10-140)

Trailer Parts Pro Breakaway Kit, 5 Amp, Cable Switch & Pin, Side Load, Push to Check, (BA10-150)

INCLUDED KIT COMPONENTS (BA10-140)

1	Breakaway Switch Cable and Pin
1	Battery Charger
1	Battery Case
1	Battery, 12V 5 Amp Rechargeable
4	Self-Tapping Screw with Hex Head Washer, 1/4" – 14 x 3"
2	Self-Tapping Screw with Hex Head Washer, 1/4"-14 x 3/4"

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1	Battery Case, Charger (Push to Check)
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4	Self-Tapping Screw with Hex Head Washer, 1/4" – 14 x 3"
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TOOLS NEEDED

Drill	Drill Bit 9/32"
Phillips Head Screwdriver	Waterproof Butt Connectors
Crimper	Wire Stripper
Ring Terminal	Wire Cutter

BE AWARE

Before starting the installation, carefully read all instructions.

Using the proper tools will enhance the quality of the installation and minimize the time needed.

To avoid damage to the product or vehicle, follow the torque recommendations when securing hardware during installation.

Be sure to test and charge the breakaway battery before using the trailer after installation. The average battery life on a full charge is 9-12 months without maintenance charging.

BREAKAWAY KIT UTILIZATION

The Trailer Parts Pro Breakaway Kit is designed for safety and activates the trailer's electric brakes if the trailer detaches from the towing vehicle. It is a key safety feature that ensures a detached trailer can be safely brought to a stop in an emergency.

Breakaway kits are typically required for trailers with a Gross Trailer Weight (GTW) of 3,000 lbs or more. Be sure to check local regulations for specific requirements.

When fully charged, the breakaway battery provides sufficient power to stop the trailer, giving you time to secure it. The integrated battery charging system will recharge and maintain the breakaway battery's charge when the trailer's 7-way electrical connector is plugged into a vehicle that is running. The test button allows an explicit check of the breakaway battery's charge level.

For the breakaway switch to operate correctly, the trailer battery must be sized to the trailer's brakes, the terminal connections must be clean, the battery must be fully charged, and the switch must be installed according to the following procedure.

MOUNTING THE SYSTEM

- » When installing the breakaway switch, Park the trailer and tow vehicle on a flat surface.
- » Install the breakaway switch on a horizontal surface on the trailer tongue as close to the hitch as possible. Ensure there are no obstructions or tension on the lanyard cable connecting to the tow vehicle. Verify that the tow vehicle can make sharp right and left turns without straining the lanyard cables.
- » Using a 9/32" drill bit, drill a hole into the trailer frame and secure the switch with the provided hardware.

NOTE: Do not overtighten the bolt to allow the breakaway switch to pivot.

- » Attach the battery case to the trailer frame in a location that does not interfere with the coiled cable lanyard.

NOTE: To prevent the cable from dragging on the ground, secure it to the tow vehicle frame, NOT to the safety chains or tow ball.

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

WIRING THE SYSTEM (BA10-140)

BREAKAWAY SWITCH WIRING:

1. Connect/Splice one black wire from the switch to the trailer's electric brake wire.
2. Connect the other black wire from the switch to the breakaway battery charger's blue wire.

BATTERY BOX WIRING:

NOTE: THE WHITE WIRE MUST BE CONNECTED LAST

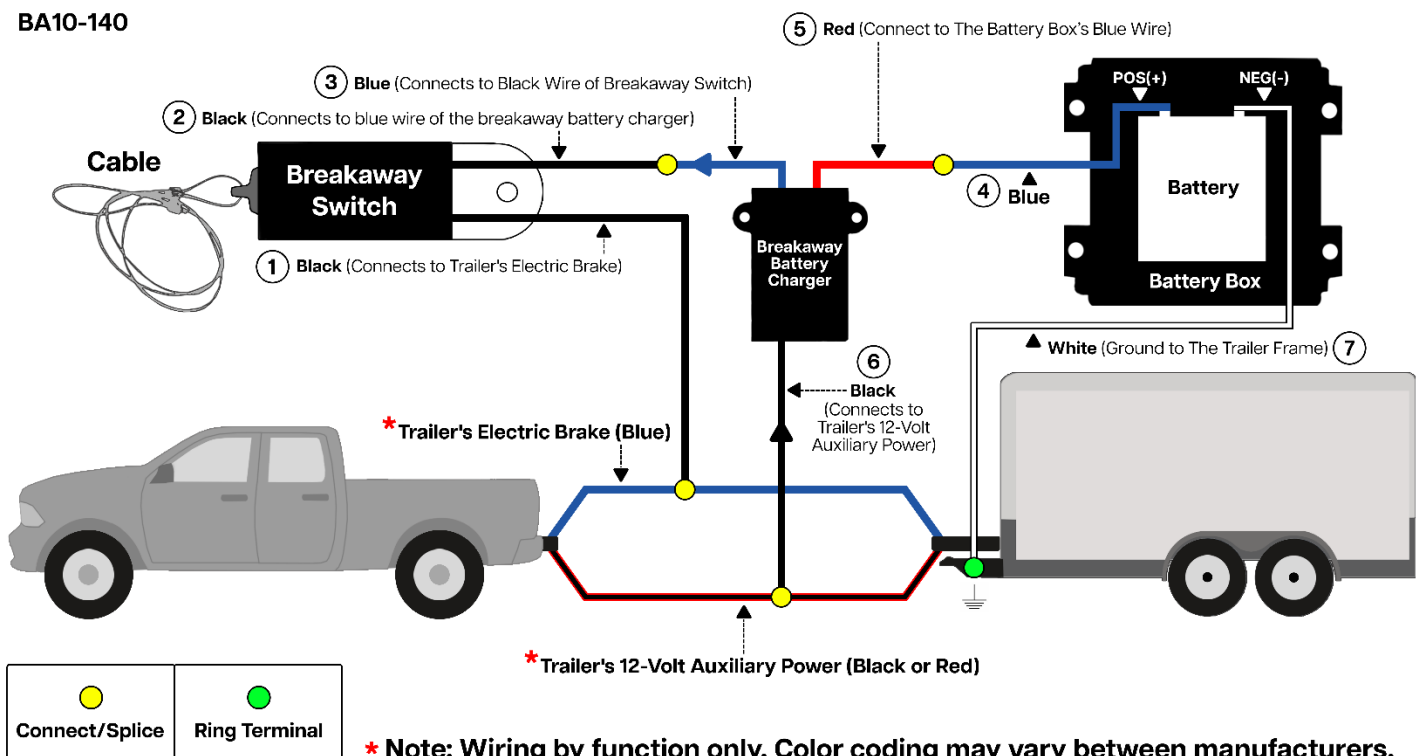
3. Blue Wire: Connect to the breakaway battery charger's red wire.

NOTE: The blue and white wire needs to be connected to the battery in the battery box.

BREAKAWAY BATTERY CHARGER WIRING:

4. Red Wire: (Already completed in Step 3) Connect to the battery box's blue wire.
5. Black Wire: Connect/Splice to the trailer's 12V auxiliary power circuit from the 7-way connector.
6. White Wire: Ground to the trailer frame using a ring terminal.

WIRING DIAGRAM (BA10-140)



WIRING THE SYSTEM (BA10-150)

BREAKAWAY SWITCH WIRING:

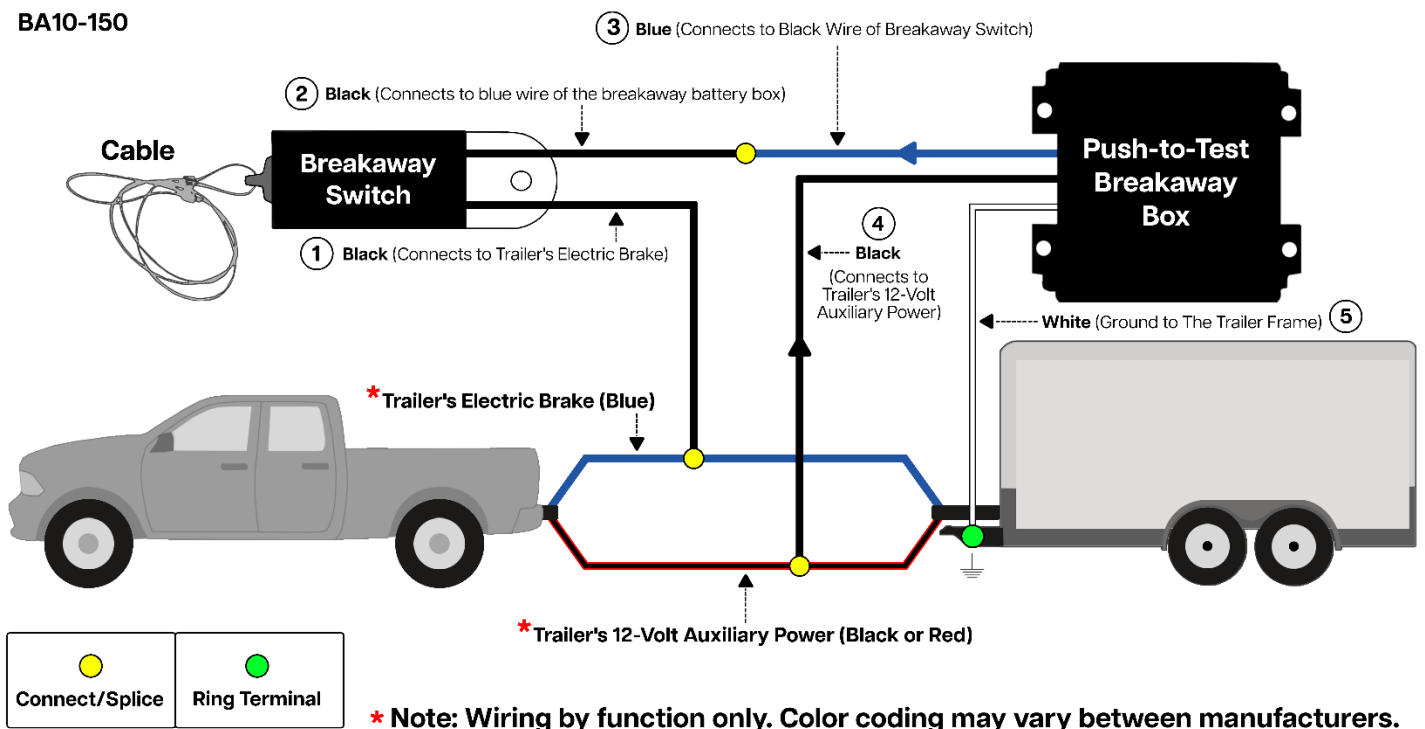
1. Connect/Splice one black wire from the switch to the trailer's electric brake wire.
 2. Connect the other black wire from the switch to the blue wire of the breakaway battery box.
- NOTE: This completes the connection mentioned in Step 3.

BATTERY BOX WIRING:

NOTE: THE WHITE WIRE MUST BE CONNECTED LAST

3. Blue Wire: (Already completed in Step 2) Connect to the switch's black wire.
4. Black Wire: Connect/Splice to the trailer's 12V auxiliary power circuit from the 7-way connector.
5. White Wire: Ground to the trailer frame using a ring terminal.

WIRING DIAGRAM (BA10-150)



TEST THE SYSTEM

- » Once the installation process is complete, it is essential to test the system.
- » Do not conduct this test with the trailer's 7-way connector plugged into a tow vehicle.
- » Lift the trailer safely off the ground using a jack and jack stands, ensuring the wheels can spin freely without touching the ground.
- » Spin a trailer wheel and pull the pin on the breakaway switch. The wheel should immediately stop spinning, simulating the application of trailer brakes during a breakaway situation.
- » To confirm that the brakes are applied, try rotating the wheels. Keep the breakaway pin pulled with the brakes engaged for 15 minutes.
- » After 15 minutes, attempt to rotate the wheels again. The trailer brakes should still be applied, and the wheels should not spin.
- » After testing, re-insert the pin until it is flush with the switch body, allowing the trailer brakes to release. Then, reconnect the trailer cord to the tow vehicle.
- » After completing the test, the breakaway battery will need to be recharged.

NOTE: Regularly test the breakaway switch and verify that the cable is undamaged, the battery is fully charged, and the battery is properly maintained.

ATTACHING THE SWITCH CABLE AND PIN TO THE TOW VEHICLE

Locate the Tow Vehicle Attachment Point: Locate a secure attachment point on your tow vehicle, usually a safety chain mount or a designated breakaway pin loop.

Attach the Switch Cable and Pin: Attach the switch cable and pin from the breakaway kit to the attachment point on the tow vehicle. Make sure it is securely fastened, keeping the cable taut without overstretching it. The coiled cable should connect directly from the switch to the vehicle, as any angled attachment could cause the breakaway switch to malfunction.

Check for Proper Length: The cable should have just enough slack to reach the attachment point when the trailer is hitched but not so much that it drags or gets caught while towing.

Test for Secure Connection: Gently tug on the cable to ensure it is securely attached and will not come loose during travel. Avoid looping the cable over the hitch ball, as it may bounce off while the vehicle is in motion.

Verify No Obstructions: Make sure the cable is free from any obstacles, sharp edges, or areas where it could be pinched or damaged during use.

BATTERY MAINTENANCE AND CHARGING (BA10-150)

When the red recharge LED lights up, it indicates that the breakaway battery needs to be charged.

To recharge it, connect the 7-way trailer electrical connector to the tow vehicle. Start the tow vehicle and leave it running for 10 to 15 minutes to allow the breakaway battery to recharge.

After the charging cycle, turn off the tow vehicle and disconnect the 7-way connector. Wait two minutes before pressing the test button. The green “Fully Charged” LED should illuminate when the test button is pressed for five seconds.

The breakaway kit's charging system will keep the breakaway battery charged while towing the trailer on a regular basis. If the trailer will be stored for an extended period, it is recommended to remove the battery and use a battery maintainer.

WARNING

- *Before each use, inspect the breakaway system wiring and switch to verify there is a secure connection and proper operation. Open or short circuits could result in a loss of braking function.*
- *To ensure proper testing of the breakaway system, it is crucial to disconnect the trailer connector from the tow vehicle beforehand. Failing to do so may cause damage to the breakaway system.*
- *Before towing, it is essential to check the breakaway battery charge level using the test button.*
- *Before driving the vehicle on the road, it is essential to test the breakaway system. Pull the cable on the breakaway switch. When the pin is pulled out of the switch, the battery activates the trailer brakes.*
- *The test button should only be used when the trailer's 7-way connector is unplugged from the tow vehicle. Otherwise, failing to do so could damage the system.*
- *Do not use the breakaway kit as a substitute for a parking brake.*
- *Do not attach the breakaway switch cable to trailer safety chains, mounting hooks, or trailer ball.*
- *It is crucial to install the breakaway switch cable in a position that prevents it from becoming detached from the tow vehicle and ensures the cable does not inadvertently pull the breakaway switch pin during regular vehicle movement*