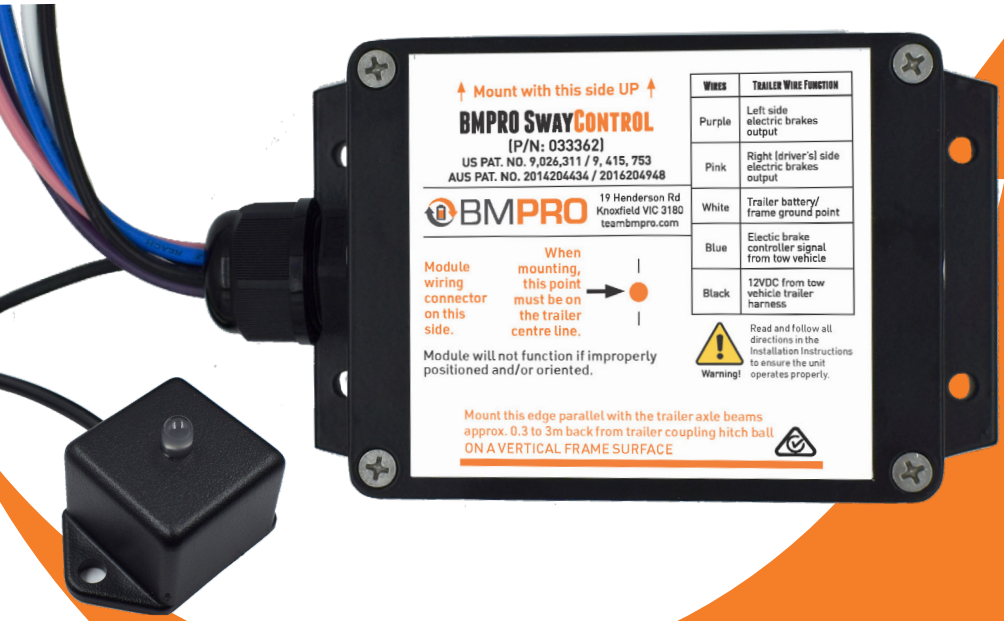
BMPRO

OWNER'S MANUAL

SWAYCONTROL



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BMPRO

POWERING YOUR ADVENTURES

With over 50 years' experience in power solutions combined with manufacturing and design facilities in Melbourne, Australia, BMPRO are the leading experts in RV power management.

Inspired by the great outdoors, we have created a range of rugged, smart and reliable products to power your adventures.

Our range of battery, power and RV management and control systems gives you peace of mind when you are on the road, so that you can relax in even the most far-flung destinations, knowing you have control over your power needs.

To learn more about the BMPRO range of products, please visit our website **teambmpro.com**

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MANUAL PART **036264**

REV **3.0**

Designed by BMPRO, one of Australia's leading power solution experts, the BMPRO product range is proudly designed and manufactured in Melbourne, Australia, and represent a high-quality product that will provide years of service.

DISCLAIMER: BMPRO accepts no liability for any loss or damage which may occur from the improper or unsafe use of its products. Warranty is only valid if the unit has not been modified or misused by the customer.

ABOUT THE SWAYCONTROL

The BMPRO SwayControl is a proactive electronic stability control that can automatically stabilise a caravan/trailer in the event of a sway. It automatically corrects caravan/trailer sway which can be caused by changing road conditions, driver error, lateral winds or a passing truck, keeping you safe on the road.

The SwayControl is mounted on the underside of the caravan/trailer chassis, wires directly to the trailer braking system and continuously monitors the trailer to detect sway. If sway is detected, the SwayControl automatically activates the caravan/trailer brakes to bring them and the vehicle under control.

The SwayControl distinguishes between safe maneuvering and dangerous trailer sway and does not require driver intervention. With independent control of left and right-hand side trailer brakes, and continual closed loop feedback, the SwayControl quickly and effectively applies the necessary braking force to the side of the caravan/trailer where it is needed to correct caravan/trailer sway.

The SwayControl features a "sleep mode" to conserve the battery. After 30 minutes of inactivity the SwayControl will shut itself off. The SwayControl "wakes up" when it receives a brake controller signal and is immediately ready to begin monitoring and controlling trailer sway.

When the SwayControl is in "sleep mode", the current draw from the battery is 35mA ±2%.

COMPATIBLE BRAKE CONTROLLERS

The SwayControl may be used with various integrated and aftermarket brake controllers, including brake controllers from:

- Ford
- General Motors
- Hayes
- Nissan
- Redarc
- Tekonsha
- Toyota

Brake controllers from other companies not listed in this manual may also work with the SwayControl.

INSTALLATION INSTRUCTIONS

The SwayControl is a safety device which is required to be installed in the caravan/trailer by suitably qualified service personnel.

⚠ WARNING

For proper operation of the SwayControl, ensure the electric brakes are adjusted and maintained in accordance with the manufacturer's recommendations in the electric brakes owner's manual.

MOUNTING LOCATION CONSIDERATIONS

The suggested location for mounting the SwayControl is on the first trailer frame crossmember, approximately 0.3 to 3.0m behind the trailer hitching point.

The SwayControl must be mounted in the correct orientation (as indicated on the label), on either the "leading" or "trailing" edge of the crossmember. The "trailing" edge is preferred, as it provides the best protection from road debris.

⚠ WARNING

DO NOT spray high pressure water on the SwayControl. The SwayControl is a weather sealed, water resistant unit, but it is not designed to withstand direct, high pressure spray from a power washer.

To operate correctly, the SwayControl must be securely fastened using all four mounting holes hard up against the floor of a steel trailer.

Do not fasten the SwayControl to any other trailer surface that flexes or moves from wind or road vibration.

MOUNTING

It is essential the SwayControl is mounted in the correct orientation.

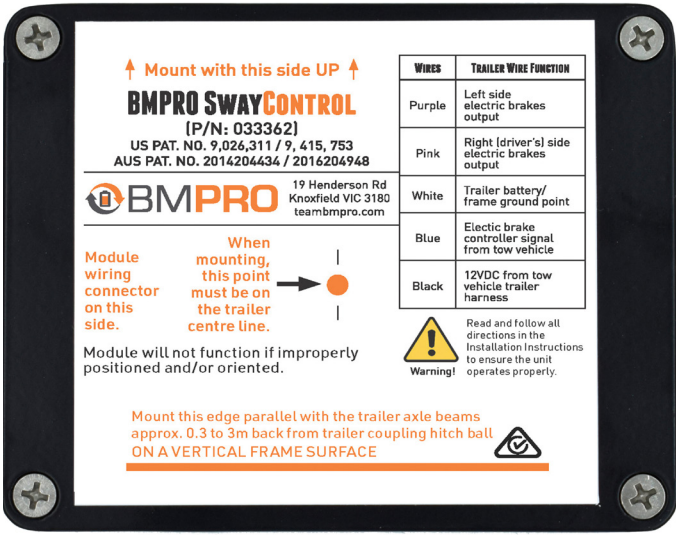


Figure 1: The **SwayControl** label with guidance on orientation and mounting.

Mount the SwayControl to the caravan/trailer using the mounting flanges located on the sides of the unit. Use four #10 self-tapping screws (not supplied) with starlock washers to mount the SwayControl.

It is recommended that starlock washers are used and that mounting screws are securely tightened to hold the SwayControl firmly in position and to avoid becoming loose from vibration.

⚠ WARNING

DO NOT drill holes in the SwayControl for any reason. Drilling holes or puncturing the unit will void your warranty.

Ensure that the SwayControl is mounted in the correct up direction.

The centre of the SwayControl (marked by the orange dot on the SwayControl label) must be positioned over the centre line of the caravan/trailer.

The bottom edge of the SwayControl (as indicated by the orange line on the bottom of the SwayControl label) must be mounted parallel to the trailer beam axle.

WIRING INSTRUCTIONS

SWAYCONTROL WIRING HARNESS

The SwayControl wire harness has five wires requiring electrical connection and one cable for the status LED light.

When making connections to the caravan/trailer's wiring harness, the desired termination is a solder joint. If the connection is not soldered, use the appropriate size and type of "crimp-type" weather sealed heat-shrink connectors, using the manufacturer's recommended crimping tools in accordance with their crimping instructions.

SwayControl Wire	Trailer Wire Function	Required Wire Size (Minimum)
PURPLE	Left side electric brake output (all left side brakes)	1.8mm²
PINK	Right side electric brake output (all right side brakes)	1.8mm²
WHITE	Trailer battery/frame ground point	1.8mm²
BLUE	Electric brake controller signal from tow vehicle	1.8mm²
BLACK	12V DC from tow vehicle trailer harness	1.8mm²

Table 1: SwayControl wire harness electrical connections and required wire gauge.

⚠ WARNING

Taking shortcuts when connecting any wires on your caravan/trailer only increases the likelihood that some part of your electrical system will fail.

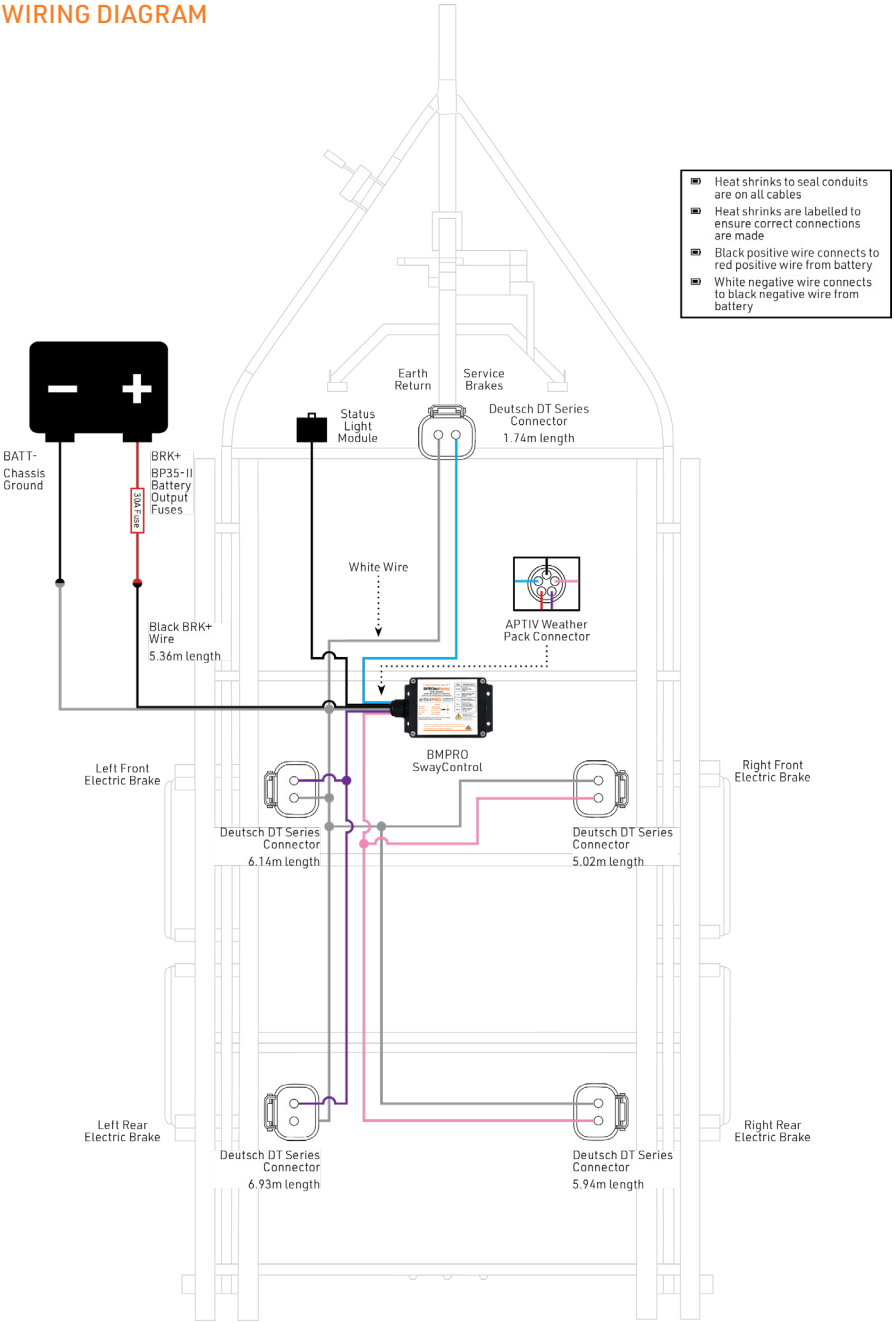
Make sure connections are durable and sealed against exposure to weather and corrosive elements. One loose connection can disable your entire caravan/trailer brake system.

⚠ WARNING

Failure to use the correct wire may result in poor braking performance or brake failure. Incorrect wire size may also result in significant damage to your caravan/trailer or its components.

Undersized wire will prevent electrical circuit protection devices such as fuses or circuit breakers from functioning properly.

WIRING DIAGRAM



Caravan/Trailer Battery

The caravan/trailer must be equipped with a 12V battery system of greater or equal to 50Ahr.

A full size caravan/trailer battery must be used.

Ground Connections

The caravan/trailer battery ground, the SwayControl ground and the electric brake ground wires must all be securely connected a 1.8 mm² (minimum) wire in order for the SwayControl to function properly.

These must be all fully grounded to a common point on the caravan/trailer.

12V Connections

The tow vehicle 12V charge line, the 12V caravan/trailer battery terminal and the SwayControl 12V (black wire) must be securely connected together with a 1.8 mm² (minimum) wire in order for the SwayControl to function properly. The "hot" wire from the breakaway switch must be connected to the +12V terminal of the caravan/trailer battery.

Electric Brake (Blue Wire) Connections

The tow vehicle brake signal (BLUE) wire must be securely connected to the SwayControl brake signal (BLUE) wire as well as to the "cold" wire from the breakaway switch.

Left and Right Side Brake Wires

The SwayControl operates the left and right side caravan/trailer brakes independently in order to control caravan/trailer sway. Therefore, it is very important the correct SwayControl wires are connected to the correct side of the brakes.

The SwayControl PURPLE wire must be connected to all left side brakes.

The SwayControl PINK wire must be connected to all right side brakes.

Failure to properly connect these wires will prevent the SwayControl from controlling caravan/trailer sway.

STATUS LIGHT MODULE INSTALLATION

Once wiring is completed, route the Status Light cable to the front of the caravan/trailer. Then mount the Status Light module onto a flat surface on the drawbar of the caravan/trailer using self-tapping screws.

Select a location that makes it easy to see the Status Light when looking at the front of the caravan/trailer.

SWAYCONTROL SELF DIAGNOSTICS

The SwayControl performs a self-diagnostic test every time it "wakes-up" upon receiving a signal from the brake controller in the tow vehicle. The Status Light may flash **RED** and **GREEN** approximately six times on start-up then go **GREEN**.

Once in operation, the SwayControl continually monitors the system for faults. If the system is operating properly and no fault is detected, the **GREEN** light will remain on and flicker or pulse.

If the SwayControl detects a fault in the system, the Status Light will turn **RED** and the fault may be diagnosed from the **RED** Status Light flash sequence. The SwayControl continues checking the fault status and the **RED** Status Light will continue to flash until the fault is corrected. Once the fault has been corrected, the **GREEN** light returns.

For more information, refer to **Troubleshooting with the Status Light.**

⚠ WARNING

When the caravan/trailer is not moving, every 60 seconds the GREEN light will turn off for two seconds, then turn back on. This is normal and indicates normal operation of the SwayControl.

If you notice the GREEN light turning off and on every 60 seconds and the caravan/trailer is moving, have your SwayControl checked by your local service centre.

FINAL BRAKE WIRING CHECK AND START UP

To check that the SwayControl is wired correctly:

1. Ensure that ONLY the **PURPLE** and **WHITE** wires from the SwayControl are connected to the left side caravan/trailer brakes and are wired in parallel and not in series.
2. Ensure that ONLY the PINK and **WHITE** from the SwayControl wires are connected to the right side caravan/trailer brakes and are wired in parallel and not in series.

After performing the final brake wiring check, the SwayControl is ready for start-up.

The operational status of the SwayControl is indicated by the LED Status Light. The SwayControl is in sleep mode if the LED Status Light is off. The SwayControl will start-up (wake-up) when voltage is applied to the **BLUE** wire.

Once the caravan/trailer is connected to the tow vehicle, apply the manual override on the caravan/trailer brake controller in the tow vehicle. If the SwayControl is installed correctly, the LED Status Light should start flickering **GREEN**.

If the LED Status Light does not come on when applying the manual override on the brake controller, refer to **Troubleshooting with the Status Light** to diagnose potential faults in the installation of the SwayControl.

⚠ WARNING

When inspecting caravan/trailer wiring, it is very important that the caravan/trailer brake controller wire from the tow vehicle (blue wire) is ONLY connected to the BLUE wire on the SwayControl AND NOT connected directly to the caravan/trailer brakes.

SERVICING

Do not attempt to service the SwayControl yourself, OR dismantle, modify or repair the SwayControl yourself; this will void your warranty. If your SwayControl requires servicing, please consult your BMPRO dealer or visit **teambmpro.com** for assistance.

TROUBLESHOOTING WITH THE STATUS LIGHT

Need more help troubleshooting your SwayControl? Contact our customer service team online at **teambmpro.com/technical-support**

Status Light Flash Sequence	Condition or Fault	Solution
Solid GREEN pulsing	Normal operation.	
GREEN flash 5 times per second	SwayControl braking is active	
1 GREEN flash every 4 seconds	Module reset to manufacturer default values. Keep trailer still for 60 seconds (minimum) then drive normally.	If module does not return to normal solid GREEN pulsing light after 3 system restarts, have the unit checked at a service centre.
Continuous RED, GREEN flash	Driving on rough terrain and sway control of trailer is disabled.	Sway control of trailer is automatically disabled when driving on rough terrain. Unit will return to normal operation (GREEN light) when not on rough terrain.
No Light	Unit in "sleep" mode	Activate manual override on the brake controller to "wake-up" unit
No Light	No power after "wake-up" from brake controller	Check quality of power, ground and brake controller wire connections. Check for any blown fuses on the tow vehicle and trailer.
No Light	Over voltage, greater than 20V detected	Check power source voltage, correct voltage is 12-15V.
No Light	Low voltage, less than 3V detected	Check power source voltage, correct voltage is 12-15V. Check quality of power and ground connections.
1 RED flash	System malfunction	Service centre repair required.
2 RED flashes	Sensor malfunction - no sway control of trailer	Service centre repair required.
3 RED flashes	Left side brake short	Correct the short in left side brake wiring.
4 RED flashes	Right side brake short	Correct the short in right side brake wiring
Fast RED flashing	Low voltage, between 3 and 6V	Check quality of power and ground connections.

WARRANTY TERMS AND CONDITIONS

Registering your BMPRO product is an important step to ensure that you receive all of the benefits you are entitled to. Please visit teambmpro.com to complete the online registration form for your new product today.

1. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

2. BMPRO warrants products against defects for a period of two years, commencing from the original date of purchase. Proof of purchase is required before you can make a claim under this warranty.

HOW TO PROTECT YOUR RIGHTS UNDER THIS WARRANTY:

3. The SwayControl is designed to be installed by a suitably qualified installer. You or your installer should carefully inspect the product before installation for any visible manufacturing defects. We accept no responsibility in addition to our consumer guarantee obligations where a product has been installed incorrectly.

4. This warranty does not extend to product failures or defects caused by, or associated with, but not limited to; failure to install or maintain correctly, unsuitable physical or operating environment, accident, acts of God, hazard, misuse, unauthorised repair, modification or alteration, natural disaster, corrosive environment, insect or vermin infestation and failure to comply with any additional instructions supplied with the product.

5. BMPRO may seek reimbursement of any costs incurred by BMPRO when a product is found to be in proper working order or damaged as a result of one or more of the warranty exclusions mentioned in point 4 of this statement.

6. To enquire or make a claim under this warranty, please follow these steps:
    a. Prior to returning a BMPRO product, please email **customerservice@teambmpro.com** to obtain a Return Material Authorisation (RMA) number.
    b. Package and send the product to:
    BMPRO Warranty Department
    19 Henderson Road
    Knoxfield, VIC 3180
    Please mark RMA details on the outside of the packaging.
    c. Please ensure the package also includes: a copy of the proof of purchase, a detailed description of the fault and your contact details including phone number and return address.

7. BMPRO will not be liable for any costs, charges or expenses incurred in the process of returning a product in order to initiate a warranty claim.

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