

Tekonsha Brake Controller Manual

ELECTRONIC BRAKE CONTROL INSTALLATION
Wiring Instructions For Electronic Brake Controls

Stop Lamp Switch - Gray 6-way

CAF	CIRCUIT	FUNCTION
1	A103 16G/RED	FUSED B(+)
2	L10 16W/7T/N or VTA/G	BRAKE LAMP SWITCH
3	V30 20V/TW (3.7L/4.7L)	S/C BRAKE SWITCH OUTPUT
3	F942 20P/LG (5.7L)	FUSED IGNITION SWITCH OUTPUT (RUN-START)
3	Z904 20B/K (DIESEL)	GROUND
4	V32 20 V/VL (3.7L/4.7L)	S/C SUPPLY
4	B16 20L/B/DG (5.7L)	BRAKE SWITCH NO. 2 SIGNAL
4	B15 20G/W/T (DIESEL)	BRAKE SWITCH NO. 1 SIGNAL
5	V32 20 V/VL (3.7L/4.7L)	S/C SUPPLY
5	Z904 20B/K (5.7L/DIESEL)	GROUND
6	B16 20L/B/DG (DIESEL)	BRAKE SWITCH NO. 2 SIGNAL
6	B15 20 G/W/T (GAS)	BRAKE SWITCH NO. 1 SIGNAL

Grand Cherokee stop lamp switch

1
STOPLIGHT SWITCH - CONNECT TO COLD SIDE (VOLTAGE ONLY WHEN PEDAL IS PUSHED)

6
Note: Pin # 2 is on the side of the connector closest to the firewall.

20A OR 30A AUTO-RESET CIRCUIT BREAKER (NOT SUPPLIED)

BATT (+) BATTERY
AUX
Circuit breaker

12 VOLT BATTERY
CHASSIS GROUND

BATTERY (+) BLACK
STOPLIGHT RED
GROUND (-) WHITE
BRAKE BLUE

BRAKE CONTROL

DISCONNECT NEGATIVE BATTERY (-) CABLE BEFORE WIRING BRAKE CONTROL UNIT

For 2005-up Grand Cherokee connect to factory supplied green wire under left dash near fuse panel

READ THIS FIRST:
Read and follow all instructions carefully before wiring brake control. Keep these instructions with the brake control for future reference.

Important Facts to Remember

- The brake control must be installed with a 12 volt negative ground system. (To install with a positive ground system use Tekonsha® P/N 3191.)
- WARNING:** Reversing BLACK and WHITE wires or improper wiring will damage or destroy brake control.
- WARNING:** Be sure to solidly connect all four wires or brake control will not function properly.
- Soldering is recommended or crimp-on butt connectors are a suitable substitution.
- Route all wires as far from the radio antenna as possible to reduce AM interference.

6. CAUTION: Use of proper gauge wire when installing the brake control is CRITICAL; smaller gauge wire may result in less than efficient braking. Minimum wire gauges are as follows:

- 1-2 axle applications - 14 GA.
- 3-4 axle applications - 12 GA.

7. Collection of water inside the trailer connector mounted on the tow vehicle will reduce the life of the connector.

8. Technical Assistance Call Toll-Free: 1-888-785-5832 or www.tekonsha.com

Wiring Legend

- + BLACK Wire (Positive Battery)
- WHITE Wire (Negative Battery)
- ⌘ RED Wire (cold side of stoplight switch)
- ⌘ BLUE Wire (brake output to trailer)

- The WHITE (-) wire must be connected to a known ground.
- CAUTION:** Inadequate grounding may cause intermittent braking or lack of sufficient voltage to trailer brakes. The WHITE wire must be connected to a suitable ground location. The negative terminal of the battery is a suitable ground location in the absence of a Trailer Tow Package connection.
- Connect BLACK (+) wire through an automatic reset circuit breaker (20 amp for 1-2 axles, 30 amp for 3-4 axles) to the POSITIVE (+) terminal of the battery. The BLACK wire is the power supply line to the brake control.
- The RED (stoplight) wire must be connected to the cold side of the brake pedal stoplight switch. Splice down line from the switch. DO NOT disturb the position of the switch.
- The BLUE (brake output) wire must be connected to the trailer connector's brake wire.

WKJeeps.com

Tekonsha brake controller manual is an essential guide for anyone who is looking to install, operate, or troubleshoot a Tekonsha brake controller. These devices are crucial for ensuring the safety and efficiency of towing operations, particularly when transporting heavy loads with a trailer. This article will provide an in-depth overview of the Tekonsha brake controller, covering installation procedures, operational guidelines, troubleshooting tips, and maintenance advice.

Understanding Brake Controllers

Brake controllers are devices that manage the electric brakes on a trailer. They work by sensing the vehicle's braking action and sending a signal to the trailer's brakes to engage. This synchronization helps in maintaining stability during towing and reduces stopping distances.

Types of Brake Controllers

There are primarily two types of brake controllers:

1. Time-Delayed Controllers: These controllers apply the brakes on a timed delay, which can be adjusted according to the towing conditions.
2. Proportional Controllers: These controllers provide a more sophisticated braking action by sensing the vehicle's deceleration and applying the trailer brakes accordingly.

Tekonsha offers both types, with models like the Tekonsha Primus and the Prodigy series being widely recognized for their reliability and effectiveness.

Installation of Tekonsha Brake Controller

Installing a Tekonsha brake controller requires basic tools and some knowledge of vehicle wiring. Here's a step-by-step guide to installing your brake controller:

Tools and Materials Needed

- Tekonsha brake controller
- Vehicle-specific wiring harness (if available)
- Wire connectors
- Crimping tool
- Screwdriver
- Drill (if needed for mounting)
- Multimeter (for testing)

Step-by-Step Installation Process

1. Read the Manual: Before starting, carefully read the Tekonsha brake controller manual to understand the specific requirements for your model.
2. Locate the Wiring Harness: Identify the vehicle's brake controller wiring harness. If your vehicle has a factory-installed harness, you may require an adapter.
3. Mount the Brake Controller: Choose a location within reach of the driver, typically below the dashboard. Use screws to secure the controller in place.
4. Connect the Wires:

- Match the wires from the brake controller to the vehicle's wiring harness as per the color coding in the manual.
- Common connections include:
 - Power (12V)
 - Ground
 - Brake signal
 - Output to trailer brakes

5. Test the Connections: Use a multimeter to ensure all connections are secure and functioning.

6. Final Check: Recheck all connections and mountings before closing the dashboard.

7. Calibrate the Controller: After installation, follow the calibration steps outlined in the manual to ensure optimal performance.

Operating Your Tekonsha Brake Controller

Once installed, operating your Tekonsha brake controller is straightforward. Here are some key points to keep in mind:

Basic Operation

1. Adjusting Sensitivity: Most Tekonsha controllers have a sensitivity adjustment feature. Set this based on your towing conditions—higher sensitivity for heavier loads and lower for lighter loads.
2. Testing the Controller: Before hitting the road, conduct a test to ensure the controller activates the trailer brakes. You can do this by gently pressing the manual override button to check the brake response.
3. Understanding LED Indicators: Many Tekonsha models come equipped with LED indicators that provide information about the brake controller status, including errors or issues with the trailer brakes. Familiarize yourself with what each indicator means.

Operating in Different Conditions

- Towing Heavy Loads: Increase the sensitivity for better response.
- Towing Light Loads: Decrease the sensitivity to avoid premature brake engagement.
- Weather Conditions: Adjust the settings based on wet or icy roads for better control.

Troubleshooting Common Issues

Despite their reliability, issues can arise with brake controllers. Here are some common problems and their solutions:

Common Issues

1. No Power to the Controller:
 - Check the vehicle's fuse related to the brake controller circuit.
 - Ensure all wiring connections are secure.
2. Inconsistent Brake Response:
 - Adjust the sensitivity settings.
 - Inspect the brake controller's wiring for damage.
3. Brake Lights Not Functioning:
 - Verify that the brake signal wire is correctly connected.
 - Check the vehicle's brake light bulbs and wiring.
4. Error Codes Displayed:
 - Refer to the manual for specific error codes and troubleshooting steps.

Regular Maintenance Tips

- Inspect Wiring: Regularly check the wiring for wear and tear.
- Clean the Unit: Dust and dirt accumulation can affect performance; wipe the controller with a damp cloth.
- Check Calibration: Periodically verify that the controller is calibrated correctly, especially after significant vehicle or trailer adjustments.

Conclusion

The Tekonsha brake controller is a vital tool for safe and effective towing. Understanding the installation process, proper operation, and troubleshooting techniques will ensure that your towing experience is smooth and secure. Always refer to the specific Tekonsha brake controller manual for detailed instructions tailored to your model, and do not hesitate to seek professional assistance if you encounter issues beyond basic troubleshooting. By investing time in learning about your brake controller and adhering to maintenance practices, you can enhance your towing safety and reliability for years to come.

Frequently Asked Questions

What is a Tekonsha brake controller manual?

A Tekonsha brake controller manual is a guide that provides detailed instructions on the installation, operation, and troubleshooting of Tekonsha brake controllers, which are used to manage the braking system of trailers.

Where can I find the Tekonsha brake controller manual?

The Tekonsha brake controller manual can be found on the official Tekonsha website, or it may be included in the packaging of the brake controller. Additionally, many retailers and online platforms offer downloadable PDFs of the manual.

What are the key features explained in the Tekonsha brake controller manual?

The manual typically covers features such as sensitivity adjustment, brake settings, wiring instructions, and troubleshooting tips to ensure optimal performance of the brake controller.

How do I install a Tekonsha brake controller according to the manual?

The installation process involves locating the vehicle's power source and brake light switch, connecting the brake controller to these points, and securing it in a suitable location within the vehicle as detailed in the manual.

What should I do if my Tekonsha brake controller is not working, as per the manual?

If your Tekonsha brake controller is not functioning, the manual recommends checking the wiring connections, ensuring that the controller is correctly calibrated, and verifying that the vehicle's brake lights are operational.

Are there specific maintenance tips provided in the Tekonsha brake controller manual?

Yes, the manual includes maintenance tips such as regularly checking connections for corrosion, ensuring that the controller is mounted securely, and testing the system periodically to confirm that it is functioning properly.

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"Looking for the Tekonsha brake controller manual? Discover how to install and troubleshoot your brake controller effectively. Get expert tips and guidance today!"

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