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› ChipPower CRS Performance Chip User Manual for Smart Fortwo Mk1/Mk2 450/451 0.8 CDI Diesel

ChipPower 200013711

ChipPower CRS Performance Chip User Manual

For Smart Fortwo Mk1/Mk2 450/451 0.8 CDI Diesel

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ChipPower CRS Performance Chip. This device is designed to optimize the performance of Smart Fortwo Mk1/Mk2 450/451 vehicles equipped with a 0.8 CDI Diesel engine. Please read this manual thoroughly before installation and use to ensure proper function and safety.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery before performing any electrical work or modifications to the engine bay.
- Ensure the engine is cool before beginning installation to avoid burns.
- If you are unsure about any step, consult a qualified automotive technician.
- Keep the device away from excessive heat, moisture, and corrosive substances.
- Do not attempt to open or modify the chip box, as this will void the warranty and may cause damage.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- ChipPower CRS Performance Chip Module
- Vehicle-specific Wiring Harness
- Zip Ties for securing cables
- User Manual (this document)



Figure 3.1: Package contents including the ChipPower CRS module, wiring harness, zip ties, and manual.

4. PRODUCT OVERVIEW

The ChipPower CRS Performance Chip is an external tuning module designed to optimize engine parameters for improved performance. It connects to existing engine sensors, modifying signals to the Engine Control Unit (ECU) to achieve increased horsepower and torque, reduced turbo lag, and potentially improved fuel efficiency under certain driving conditions.



Figure 4.1: The ChipPower CRS Performance Chip module.



Figure 4.2: Key features of the ChipPower CRS module.



Figure 4.3: Dimensions of the ChipPower CRS module and harness.

5. SETUP AND INSTALLATION

Follow these steps carefully for proper installation. The chip is individually tuned for your specific vehicle model, engine size, engine power, and year of manufacture. Ensure these details were provided correctly at the time of purchase.

1. **Prepare the Vehicle:** Turn off the ignition and remove the key. Disconnect the negative terminal of the vehicle's battery. Wait at least 15 minutes to allow the vehicle's electronic systems to fully power down.
2. **Locate the Sensor:** Identify the correct sensor in your engine bay where the chip's wiring harness will connect. For the Smart Fortwo 0.8 CDI Diesel, this typically involves the fuel rail pressure sensor. Refer to your vehicle's service manual if you are unsure.
3. **Connect the Harness:** Disconnect the original sensor plug from the vehicle's sensor. Connect the ChipPower wiring harness in-line with the sensor. One end of the harness connects to the vehicle's sensor, and the other end connects to the original vehicle wiring plug. Ensure all connections are secure and click into place.
4. **Connect the Chip Module:** Plug the main connector from the wiring harness into the ChipPower CRS module. Ensure it is firmly seated.



Figure 5.1: Connecting the wiring harness to the ChipPower module.

5. **Mount the Chip Module:** Find a secure location in the engine bay away from excessive heat, moving parts, and moisture. Use the provided zip ties to firmly secure the ChipPower module and excess wiring. Ensure cables are not pinched or rubbing against sharp edges.

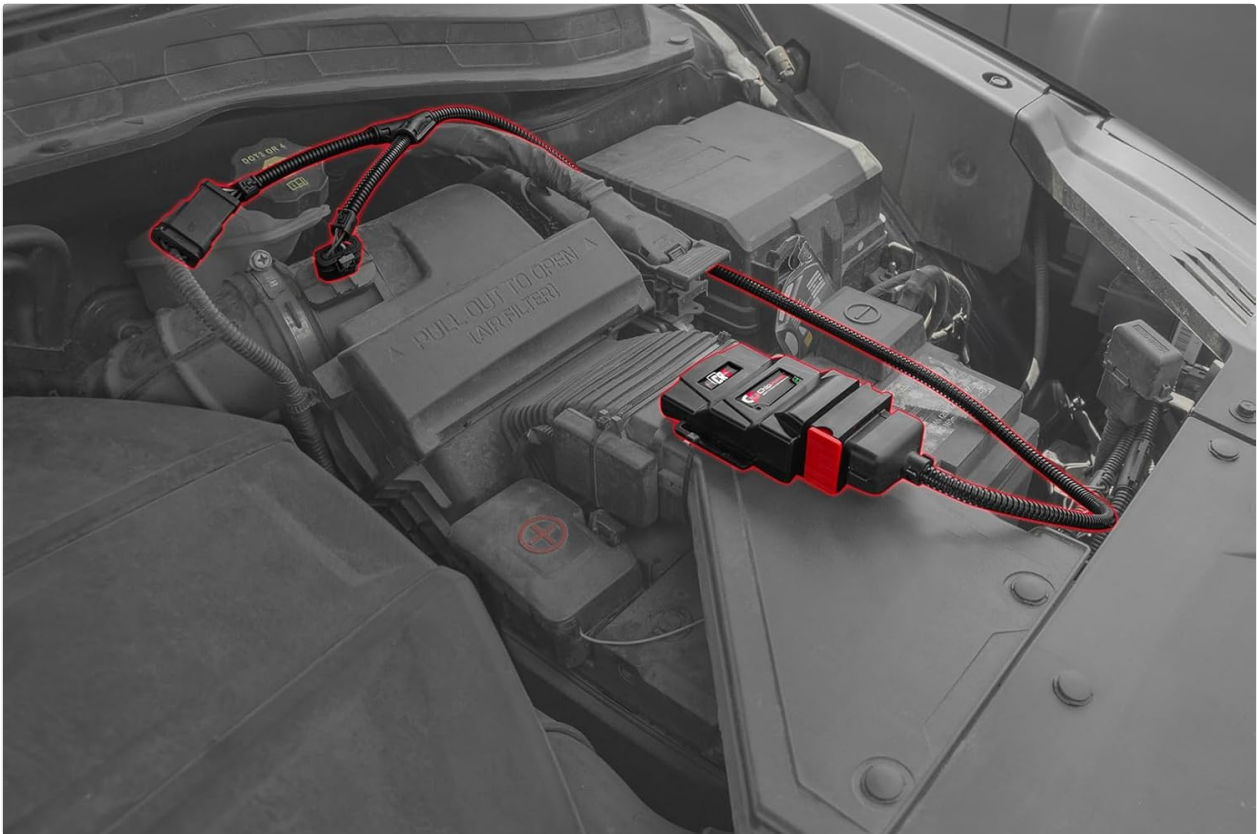


Figure 5.2: Example installation in an engine bay.

6. **Reconnect Battery:** Reconnect the negative terminal of the vehicle's battery.
7. **Initial Start-up:** Start the engine and let it idle for a few minutes. Check for any warning lights on the dashboard. If warning lights appear, turn off the engine, recheck all connections, and restart.

6. OPERATION

Once installed, the ChipPower CRS Performance Chip operates automatically. The module continuously optimizes engine parameters based on driving conditions. No further user interaction is typically required for daily operation.

7. PERFORMANCE ADJUSTMENT

Your ChipPower CRS module may feature an adjustment screw to fine-tune performance levels. This allows for minor adjustments to the chip's output, typically ranging from a more conservative setting to a more aggressive one. Refer to the diagram below for the location of the adjustment screw.

- To adjust, use a small screwdriver to carefully turn the screw.
- Turning the screw clockwise generally increases performance, while counter-clockwise reduces it.
- Make small adjustments and test the vehicle's performance before making further changes.
- Always ensure the engine is off and the key is removed before making adjustments.



Figure 7.1: Location of the performance adjustment screw.

8. MAINTENANCE

The ChipPower CRS Performance Chip requires minimal maintenance. Periodically inspect the wiring harness and connections to ensure they remain secure and free from damage. Keep the module clean and dry. Do not use harsh chemicals or abrasive materials for cleaning.

9. TROUBLESHOOTING

- **Engine Warning Light:** If an engine warning light appears after installation, immediately turn off the engine. Recheck all connections of the wiring harness to ensure they are fully seated. Disconnect and reconnect the battery to reset the ECU. If the light persists, remove the chip and return the vehicle to its original configuration. Contact ChipPower support for assistance.
- **No Performance Change:** Ensure all connections are secure. Verify that the chip module is correctly plugged into the harness. If the issue persists, contact ChipPower support.
- **Rough Idling/Unusual Engine Behavior:** Disconnect the chip and return the vehicle to its original configuration. This behavior may indicate an incompatibility or incorrect installation. Contact ChipPower support.

10. SPECIFICATIONS

Feature	Detail
Brand	ChipPower

Model Name	CRS Performance Chip
Manufacturer Part Number	200013711
Compatible Vehicles	Smart Fortwo Mk1/Mk2 450/451 0.8 CDI Diesel
Date First Available	April 5 2022

11. WARRANTY AND SUPPORT

For warranty information, technical support, or any questions regarding your ChipPower CRS Performance Chip, please contact ChipPower directly through their official website or the retailer from whom you purchased the product. Keep your proof of purchase for warranty claims.