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› Vance & Hines FP4 Fuelpak Auto Tuner User Manual

Vance & Hines FP4 (66045)

Vance & Hines FP4 Fuelpak Auto Tuner User Manual

Model: FP4 (66045)

INTRODUCTION

The Vance & Hines FP4 Fuelpak Auto Tuner is an advanced ECU tuning device designed for Harley-Davidson motorcycles. It provides comprehensive control over your motorcycle's engine management system, allowing for performance optimization, live sensor data monitoring, and diagnostic capabilities directly from your smartphone. This manual provides detailed instructions for the installation, operation, and maintenance of your FP4 device, ensuring you can fully utilize its features for an enhanced riding experience.



Figure 1: The Vance & Hines FP4 device alongside its smartphone application interface, demonstrating the compact design of the tuner and the user-friendly layout of the mobile app.

SETUP AND INSTALLATION

Proper installation of the FP4 device is crucial for its functionality. Follow these steps carefully.

1. Unboxing and Components

Verify that all components are present in the package:

- Vance & Hines FP4 Module

- Vehicle-specific wiring harness (integrated)
- Quick Start Guide (refer to this manual for full details)



Figure 2: A detailed view of the Vance & Hines FP4 module, highlighting its compact size and integrated wiring harness.

2. App Download and Account Setup

1. Download the official Vance & Hines FP4 app from your smartphone's app store (iOS or Android).
2. Open the app and create a new user account or log in if you already have one.
3. Ensure your smartphone's Bluetooth is enabled.

3. Device Installation on Motorcycle

The FP4 module connects directly to your motorcycle's diagnostic port. The exact location may vary by model, but it is typically found near the battery, under the seat, or behind a side cover.

1. Locate your motorcycle's diagnostic port.
2. Ensure the motorcycle's ignition is OFF.
3. Connect the FP4 module's wiring harness to the diagnostic port. It is designed for a secure, plug-and-play fit.
4. Secure the FP4 module in a safe location, away from excessive heat, moisture, and moving parts. The compact design allows for discreet placement.



Figure 3: Illustrates the process of connecting the FP4 device to the motorcycle's diagnostic port, showing the secure fit of the harness.



Figure 4: A close-up view of the FP4 module securely connected to the motorcycle's electrical system, indicating proper installation.

4. Initial Connection and Pairing

1. Turn the motorcycle's ignition ON (do not start the engine yet).
2. Open the FP4 app on your smartphone.
3. The app will automatically search for and connect to your FP4 module via Bluetooth. Follow any on-screen prompts to complete the pairing process.
4. Once connected, the app will display the main menu.

OPERATING THE FP4 FUELPACK

The FP4 app provides a user-friendly interface to access various tuning and diagnostic features.



Figure 5: The main menu of the FP4 application, showing key functionalities such as Map Lookup, Optimizations, and Autotune.

Key Features and Functions:

- **Map Lookup:** Access a vast library of dyno-tuned maps specifically designed for various motorcycle configurations (exhaust, air intake, etc.). Select the map that best matches your setup.

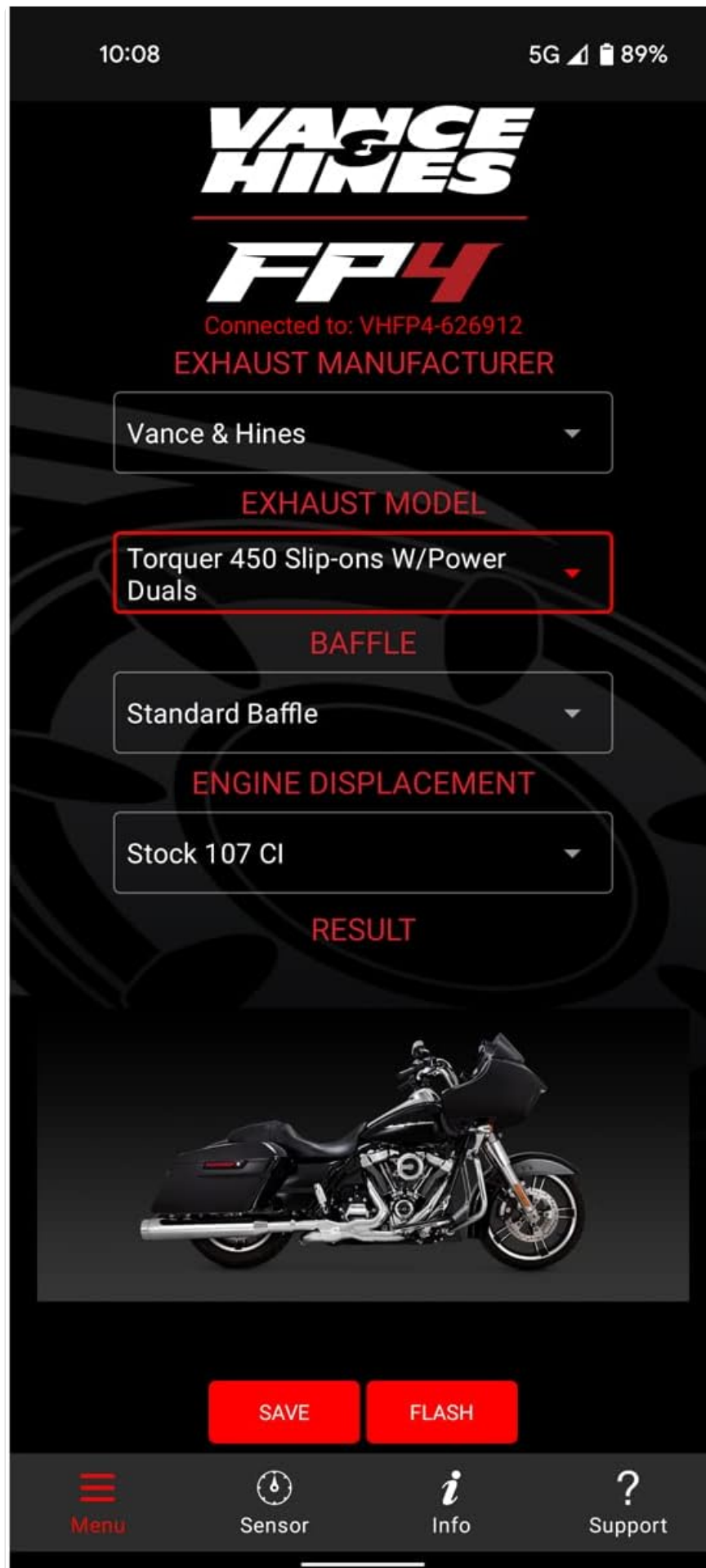


Figure 6: Screenshot of the FP4 app demonstrating the map lookup interface, allowing users to select their specific exhaust

manufacturer and model for optimal tuning.

- **View/Edit Maps:** Review and make minor adjustments to existing maps.
- **Optimizations:** Fine-tune specific parameters for advanced users.
- **Autotune:** Utilize the Autotune feature to automatically optimize your fuel delivery based on real-time riding conditions. This feature records data during your ride and suggests adjustments for improved performance.
- **Live Sensor Data:** Monitor crucial engine parameters in real-time, such as RPM, engine temperature, throttle position, and more. The app provides an upgraded display with additional gauges.
- **Performance Data:** Record your ride data, including sensor readings and GPS information, to analyze performance and identify areas for improvement.
- **Read and Clear Trouble Codes:** Diagnose engine issues by reading diagnostic trouble codes (DTCs) and clear them after addressing the underlying problem.
- **Dealer Tools:** Access specialized functions for authorized dealers.



2. **Flash the ECU:** Once a map is selected, follow the app's prompts to "flash" or upload the new map to your motorcycle's ECU. Ensure the motorcycle's ignition remains on and the battery is sufficiently charged during this process. Do not interrupt the flashing process.
3. **Autotune (Optional but Recommended):** For further optimization, activate the "Autotune" feature. Ride your motorcycle under various conditions (city, highway, different RPMs) to allow the FP4 to collect data and refine the fuel delivery.
4. **Review and Apply:** After an Autotune session, review the suggested adjustments in the app and apply them to your map.

MAINTENANCE

The Vance & Hines FP4 is designed for durability and requires minimal maintenance. However, following these guidelines will ensure its longevity and optimal performance:

- **Keep Clean:** Periodically wipe the FP4 module with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or abrasive cleaners.
- **Secure Placement:** Ensure the module remains securely mounted on your motorcycle to prevent damage from vibrations or impacts.
- **Software Updates:** Regularly check the FP4 app for software and firmware updates. These updates often include performance improvements, new features, and bug fixes. Install updates as they become available to ensure compatibility and optimal functionality.
- **Connection Integrity:** Periodically inspect the wiring harness and connectors for any signs of wear, corrosion, or damage. Ensure connections remain tight and secure.
- **Environmental Protection:** While the FP4 is designed for motorcycle environments, avoid prolonged exposure to extreme temperatures, direct water submersion, or excessive humidity.

TROUBLESHOOTING

If you encounter issues with your FP4 Fuelpak, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
FP4 App cannot connect to module.	Bluetooth is off; module not powered; app permissions; incorrect pairing.	Ensure Bluetooth is on. Turn motorcycle ignition ON. Check app permissions for Bluetooth. Restart app and try pairing again.
Map flashing fails or is interrupted.	Low motorcycle battery; ignition turned off; app closed during flash.	Ensure motorcycle battery is fully charged. Do not turn off ignition or close app during flashing. Retry the flash.
Motorcycle runs poorly after flashing.	Incorrect map selected; incomplete flash; underlying mechanical issue.	Verify the selected map matches your motorcycle's configuration. Re-flash the map. Check for diagnostic trouble codes (DTCs) using the app. Consult a qualified mechanic if issues persist.
Live data not displaying or is erratic.	Loose connection; app glitch; module fault.	Check all connections to the FP4 module. Restart the app. If the problem continues, contact Vance & Hines support.

For more detailed troubleshooting or issues not listed here, please refer to the official Vance & Hines support resources.

SPECIFICATIONS

- **Model Name:** FP4
- **Item Model Number:** 66045
- **Manufacturer:** Vance & Hines
- **Connectivity:** Bluetooth
- **Special Features:** Live Sensor Data, Error Code Reading, Real-time Sensor Display, GPS Integration, Autotune
- **Vehicle Service Type:** Motorcycle (Harley-Davidson CAN-BUS models: 2014-2020 Touring, 2011-2020 Softail, 2012-2017 Dyna, 2014-2022 Sportster, 2014-2020 Street)
- **Dimensions (Module):** Approximately 14.2 x 13.7 x 2.6 cm
- **Weight (Module):** Approximately 103 g
- **Included Components:** FP4 Module with integrated wiring harness

WARRANTY AND SUPPORT

For warranty information, product registration, and technical support, please visit the official Vance & Hines website or contact their customer service department. Keep your proof of purchase for warranty claims. Vance & Hines offers industry-leading support from FP4 technicians to assist with any questions or issues you may encounter.

Official Website: www.vanceandhines.com

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Answered questions about this manual

How do I adjust the idle on a 2015 XL 1200 Sportster using the Vance & Hines FP4?

To adjust the idle speed on your 2015 XL 1200 Sportster using the Vance & Hines FP4, follow these steps within the mobile application: Connect to the Device: Ensure your FP4 is plugged into the...

[Read full answer](#)

Is it possible to transfer my Vance & Hines FP4 Fuelpak to my new bike after my old one was written off, and if so, what is the process?

Generally, the Vance & Hines FP4 Fuelpak is "married" or locked to the VIN (Vehicle Identification Number) of the first motorcycle it is used to flash. Once a map is flashed to a bike's...

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