



Tune File Installation Instructions for Power Vision 3

DISCLAIMER:

Many S&S parts are designed for high performance, closed course, racing applications and are intended for the very experienced rider only. The installation of S&S parts may void or adversely affect your factory warranty. In addition such installation and use may violate certain federal, state, and local laws, rules and ordinances as well as other laws when used on motor vehicles used on public highways. Always check federal, state, and local laws before modifying your motorcycle. It is the sole and exclusive responsibility of the user to determine the suitability of the product for his or her use, and the user shall assume all legal, personal injury risk and liability and all other obligations, duties, and risks associated therewith.

Exempt from emissions tampering regulations under
CARB EO# D-355-32

IMPORTANT NOTICE:

Statements in this instruction sheet preceded by the following words are of special significance.



WARNING

Means there is the possibility of injury to yourself or others.



CAUTION

Means there is the possibility of damage to the part or motorcycle.

NOTE

*Other information of particular importance has been placed in italic type.
S&S recommends you take special notice of these items.*

SAFE INSTALLATION AND OPERATION RULES:

Before installing your new S&S part, it is your responsibility to read and follow the installation and maintenance procedures in these instructions and follow the basic rules below for your personal safety.

- Gasoline is extremely flammable and explosive under certain conditions and toxic when breathed. Do not smoke. Perform installation in a well ventilated area away from open flames or sparks.
- If motorcycle has been running, wait until engine and exhaust pipes have cooled down to avoid getting burned before performing any installation steps.
- Before performing any installation steps, disconnect battery to eliminate potential sparks and inadvertent engagement of starter while working on electrical components.
- Read instructions thoroughly and carefully so all procedures are completely understood before performing any installation steps. Contact S&S with any questions you may have if any steps are unclear or any abnormalities occur during installation or operation of motorcycle with an S&S part on it.
- Consult an appropriate service manual for your motorcycle for correct disassembly and reassembly procedures for any parts that need to be removed to facilitate installation.
- Use good judgment when performing installation and operating motorcycle. Good judgment begins with a clear head. Don't let alcohol, drugs or fatigue impair your judgment. Start installation when you are fresh.
- Be sure all federal, state and local laws are obeyed with the installation.
- For optimum performance and safety and to minimize potential damage to carb or other components, use all mounting hardware that is provided and follow all installation instructions.
- Motorcycle exhaust fumes are toxic and poisonous and must not be breathed. Run motorcycle in a well ventilated area where fumes can dissipate.

WARRANTY:

All S&S parts are guaranteed to the original purchaser to be free of manufacturing defects in materials and workmanship for a period of twelve (12) months from the date of purchase. Merchandise that fails to conform to these conditions will be repaired or replaced at S&S's option if the parts are returned to us by the purchaser within the 12 month warranty period or within 10 days thereafter.

In the event warranty service is required, the original purchaser must call or write S&S immediately with the problem. Some problems can be rectified by a telephone call and need no further course of action.

A part that is suspect of being defective must not be replaced by a Dealer without prior authorization from S&S. If it is deemed necessary for S&S to make an evaluation to determine whether the part was defective, a return authorization number must be obtained from S&S. The parts must be packaged properly so as to not cause further damage and be returned prepaid to S&S with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem, how the part was used and the circumstances at the time of failure. If after an evaluation has been made by S&S and the part was found to be defective, repair, replacement or refund will be granted.

ADDITIONAL WARRANTY PROVISIONS:

- (1) S&S shall have no obligation in the event an S&S part is modified by any other person or organization.
- (2) S&S shall have no obligation if an S&S part becomes defective in whole or in part as a result of improper installation, improper maintenance, improper use, abnormal operation, or any other misuse or mistreatment of the S&S part.
- (3) S&S shall not be liable for any consequential or incidental damages resulting from the failure of an S&S part, the breach of any warranties, the failure to deliver, delay in delivery, delivery in non-conforming condition, or for any other breach of contract or duty between S&S and a customer.

Overview

The included Power Vision 3, (PV3) unit has been preloaded with the Tune File for your camshaft kit. These instructions will cover the steps to connect the PV3 and flash the correct Tune File into your motorcycle's ECU.

The PV3 has the following features:

- Flashing Tune Files
- Gauges display & Data Logging
- Access to diagnostic data

Controls and connections of the Power Vision are shown in **Figure 1**

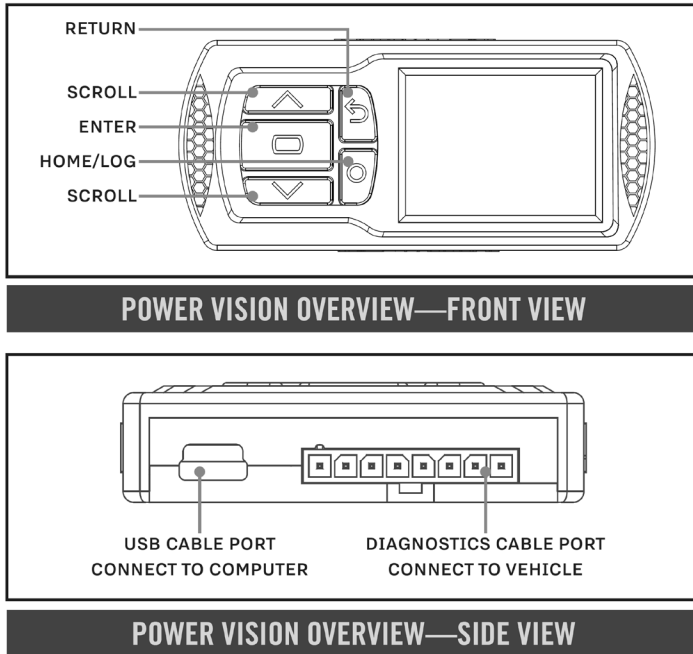


Figure 1

Installing the PV3

NOTE: Loading the Tune File will require the bike to be keyed on for a few minutes. If the battery is low or weak it is recommended a battery charger be connected during the Tune File loading process.

NOTE: The PV3 does not need to be mounted to the motorcycle.



CAUTION

If you choose to mount the PV3 make sure the PV3 and included diagnostic cable will not interfere with the operation and/or steering of the vehicle.

Connecting the PV3: Attach the diagnostic cable to the diagnostic port on the PV3 and to the 6 pin diagnostic port on the motorcycle. The vehicle diagnostic port can be found in the following location

Touring Models: Located behind the left side panel.



Picture 1

Getting Started:

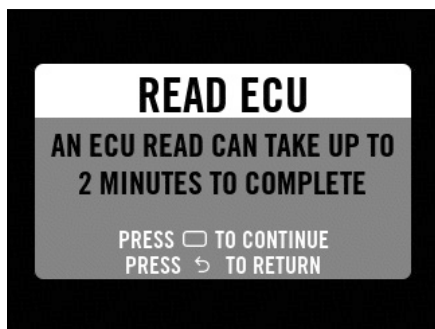
1. Connect the PV3 to the motorcycle.
2. Once connected, turn the key on and wait a moment for the PV3 to power up and display the **Getting Started** Screen
 - a. Click Enter button to initiate the ECU read process



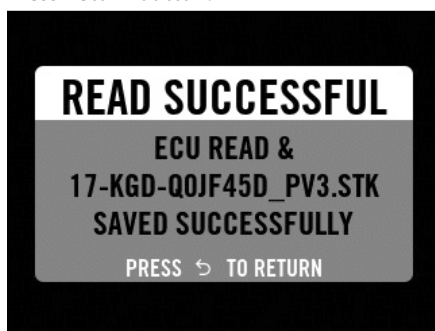
- b. Click the Enter button to Pair PV3 to motorcycle's ECU



- c. Click Enter button to Continue Read ECU. Note that this may take up to 2 minutes



- d. PV3 will indicate READ SUCCESSFUL when the ECU Read has been completed. Press Return button.



- e. PV3 will now show the **Ready To Flash** screen. Click the Enter button.

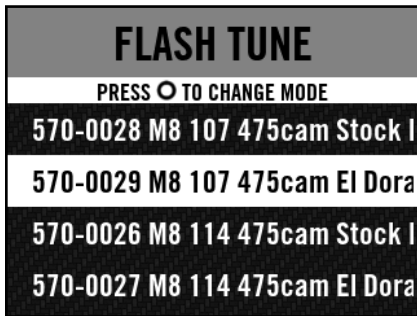


f. The next screen to appear is the Flash Tune Screen. All S&S Tune files are denoted by a part number followed by a tune file description.

NOTE: The pre-loaded tune files were developed specifically for your cam kit. For best performance, select the combination that matches your motorcycle. Use the following table to determine which calibration to select.

570-0026	2017–2019 M8 114" Touring Models, S&S 475 Cam, Stock Header, Stock or Slip-on Mufflers, Stock or Performance Air Cleaner
570-0027	2017–2019 M8 114" Touring Models, S&S 475 Cam, S&S El Dorado Exhaust, Performance Air Cleaner
570-0028	2017–2019 M8 107" Touring Models, S&S 475 Cam, Stock Header, Stock or Slip-on Mufflers, Stock or Performance Air Cleaner
570-0029	2017–2019 M8 107" Touring Models, S&S 475 Cam, S&S El Dorado Exhaust, Performance Air Cleaner

g. On the PV3 unit, use the up/down arrows to highlight the correct tune file PN for your application and then hit the Enter button.



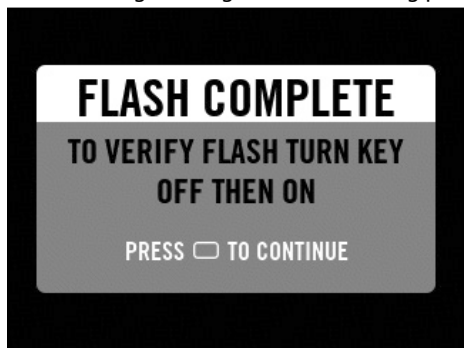
h. Once the tune file is selected, the **TUNE INFO** screen will appear. This screen gives the full description of the tune file. Ensure description matches the configuration of your motorcycle and then hit Enter to start ECU Flash.



i. A **Warning** Screen may appear next. If so, hit Enter button to continue with Tune flash.



- j. The PV3 will go through the Tune Writing process then display **Flash Complete** screen



At this point the tune file has successfully been flashed to the motorcycles ECU.

Turn the ignition key off for at least ten seconds to complete the process.

Updating the PV-3 Device

Although your PV-3 device is preloaded with a selection of tune files to support your camshaft kit, there may be times where updates are needed for either the tune files or the PV-3 firmware.

Examples of when updates may be needed:

- You wish to transfer your older kit to a newer model year motorcycle supported by an updated EO number.
- Your motorcycle ECM contains a newer version of software released by HD® as an update.

S&S Cycle will provide necessary updates through an online database specific to S&S products using the PV-3 device and tune files. To check for updates visit tunes.dynojet.com

NOTE: All S&S tune files are designated by a part number. If a revision is needed, the revision will be noted by a letter following the PN.

EXAMPLE: 570-0026A would be one revision newer than 570-0026.

Once the tunes.dynojet.com site has loaded, follow the instructions given on the main page to upload the PV_Info.txt file from your PV-3.

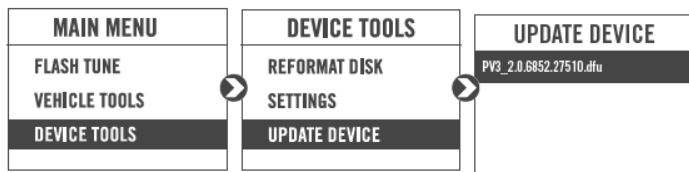
NOTE: The PV-3 Device Pairing and ECU Read steps (Section 2a – 2c of this instruction sheet) must be completed before the tunes.dynojet.com site will recognize your device's PV_Info.txt file.

Once you have selected and submitted the PV_Info.txt file on the tunes.dynojet.com site, all applicable tune files and/or firmware updates will be displayed. Select the file(s) that match your configuration and download and save to your PV-3.

Once the new tune files are saved on your PV-3, follow steps 2a – 2j of this instruction to select and flash to correct tune file to your motorcycle's ECU.

If a PV-3 firmware update is required, use the following steps to update the PV-3 device.

1. From the PV-3 main menu, select device tools
2. In Device Tools, select Update Device
3. In Update Device, select the new firmware file you downloaded from tunes.dynojet.com site



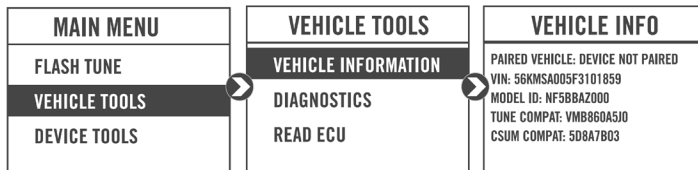
Accessory Functions in Power Vision

The following steps cover the accessory menus and options available in your Power Vision

Viewing the Vehicle Information:

This menu allows you to view the device status (paired/not paired), VIN #, Model ID, ECU serial number, tune compat, and checksum compat.

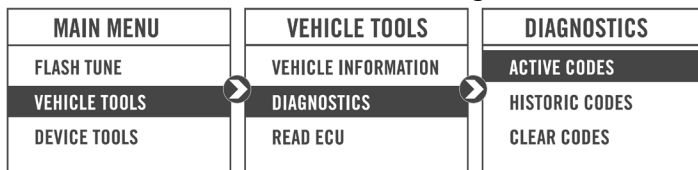
Select: **Vehicle Tools>Vehicle Information**



Viewing Diagnostic Codes:

This menu allows you to read and clear diagnostic trouble codes.

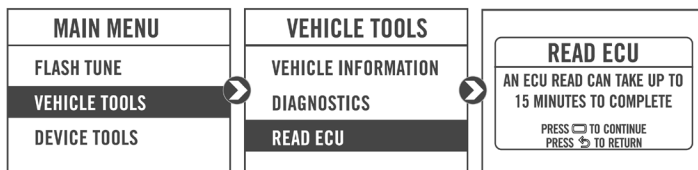
- To read codes, select **Vehicle Tools>Diagnostics>Active Codes**
- To clear codes, select **Vehicle Tools>Diagnostics>Clear Codes**



Reading the ECU:

This menu allows you to read the ECU. This process takes about fifteen minutes.

Select **Vehicle Tools>Read ECU**



Restoring the ECU:

This menu allows you to restore the ECU. Use Restore ECU if the device does not complete the flash or if your vehicle will not start.

Select **Vehicle Tools>Restore ECU**



Configuring Gauges:

This menu allows you to configure up to four different gauge screens. Each gauge screen has four configurable channels.

1. From the Main Menu, select **Device Tools>Configure Gauges**
2. Select a gauge screen and press **Enter**
3. Select a channel and press **Enter**
4. Select a channel from the list and press **Enter**
5. Select the precision or units for that channel and press **Enter**
6. Continue setting up the remaining channels as desired
7. Continue configuring the remaining gauge screens as desired

MAIN MENU	DEVICE TOOLS	CONFIGURE GAUGES
FLASH TUNE	CONFIGURE GAUGES	SCREEN 1
VEHICLE TOOLS	DEVICE INFORMATION	SCREEN 2
DEVICE TOOLS	REFORMAT DISK	SCREEN 3
		SCREEN 4

CONFIGURE SCREEN	SELECT UNIT	SELECT PRECISION
CHANNEL 1	RPM	0
CHANNEL 2	RPMx10	0.0
CHANNEL 3	RPMx100	0.00
CHANNEL 4	RPMx1000	0.000

Logging Data:

1. Press the **Log** button to begin logging. The Power Vision screen will illuminate a bright red banner across the top when logging
2. Press the **Log** button again to stop logging
3. Use the Power Core software to view log files

Snapshot Log: Press and hold the **Log** button for two seconds to record the previous two minutes of operating time.

DATA LOG DATA LOGGING HAS STARTED. PRESS AGAIN TO STOP	Engine Speed 2550 RPM TPS 10.5 STFT AFR 1 14.6 AFR -6.3	SAVING LOG SAVING LOG...
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DATA LOG 29001101_LOG_1.wp8 SAVED SUCCESSFULLY

Deleting Data Logs:

This menu allows you to delete data logs.

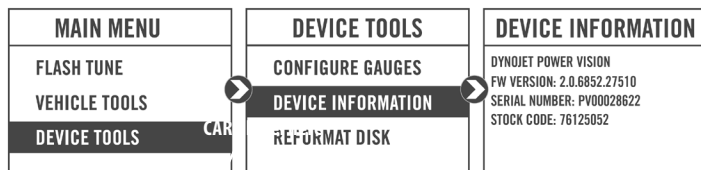
1. Select **Vehicle Tools>Delete Data Log**
2. Select a specific log to delete or select ***Delete All Logs***.

MAIN MENU	VEHICLE TOOLS	LOG FILES
FLASH TUNE	DIAGNOSTICS	*Delete All Logs*
VEHICLE TOOLS	READ ECU	29001101_LOG_1.wp8
DEVICE TOOLS	DELETE DATA LOG	29001101_LOG_2.wp8
		29001101_LOG_3.wp8

Viewing Device Information:

This menu allows you to view the device firmware version, serial number, and stock code.

Select **Device Tools>Device Information**



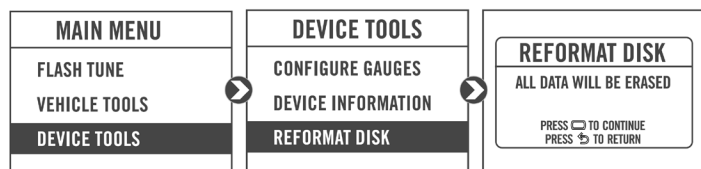
Reformatting the Disk:

This menu allows you to reformat the disk and erase all data.



Reformatting will erase all of the preloaded calibrations on your device. **DO NOT** perform this function unless advised to do so by S&S Cycle technical support.

Select **Device Tools>Reformat Disk**

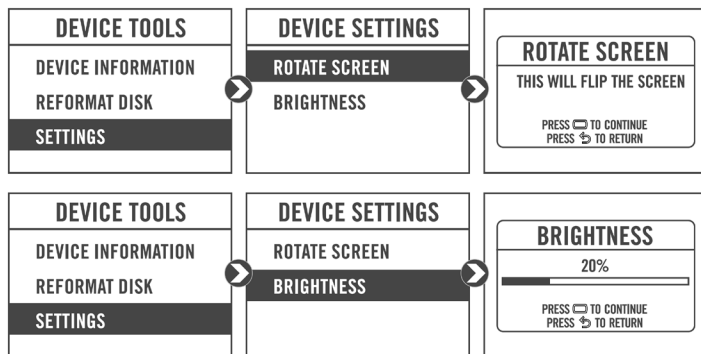


Changing the Settings:

This menu allows you to rotate the screen allowing you to change the orientation of the Power Vision device along with adjusting the screen brightness.

Select **Device Tools>Settings>Rotate Screen** to flip the screen.

Select **Device Tools>Settings>Brightness** to change the screen brightness.



CARB EO label and ECM ID Tag:

1. Apply the included label containing the CARB EO number to the frame down tube above or below the factory label. Do not cover up any portion of the factory label.



2. The ECM ID Tag is provided to note that the vehicle ECU has been flashed with a tune file covered by a CARB EO. Use included Ziptie to attached ECU ID Tag to the vehicles warning harness leading to the diagnostic's port **shown in photo 1** of this instruction sheet.

ECM contains calibration for
● 475 Cam & Calibration Kit.
CARB EO D-355-32

