



Getting Started with Orion2 and Hyperspace Tuning Software

Introduction

Spitronics hardware is designed to be highly versatile, adaptable for a wide range of engines, transmissions, throttle-by-wire systems, and more. This versatility allows dealers to carry a smaller inventory. Our unique online software activation lets dealers activate and pay for the product when a sale has been made. The software is available in four different classes, each designed for specific applications and priced accordingly.

Spitronics controllers are stand-alone units and are sold with universal harnesses, catering to our core clients who are experienced and prefer customizing their wiring to suit specific needs.

While the Spitronics brand is primarily distributed through dealers focused on the industry, our products are also aimed at skilled DIY users. Dealers selling to DIY clients are expected to resell products with a pre-loaded start-up map and the appropriate firmware, as well as to provide basic after-sales service and introductory technical support. Spitronics relies on a broad network of dealers, supported by knowledgeable and trained wholesalers with extensive brand expertise. Our network comprises independent dealers, each offering specialized knowledge. We recommend reviewing your dealer's services and capabilities before purchase.

All information, software, and manuals are available as freeware at www.spitronics.com. Please refer to *Compiling an ECU Product* for guidelines on selecting the correct firmware, product, and documentation, and review our terms and conditions for full details.

How is this product presented in the market?

To achieve successful integration of this product in a vehicle, three key purchases are typically involved: the Product, Installation & Support, and Tuning & Support.

1. The Product

The product is sold independently of installation and tuning services. As a DIY product, it is available to anyone, though installation and tuning should be performed by a professional or a highly skilled DIYer. All technical drawings, manuals, and software are available as freeware on our website. A desktop or laptop is required, along with a communication cable, as well as a solid understanding of automotive electronics and basic computer skills. Each product is rigorously tested and comes with a one-year exchange warranty.

2. Installation and Support

Installation and support are managed by participating dealers; EeziRider does not offer telephonic support, installations, or tuning services. The installer is responsible for proper installation. If you are new to engine management systems, consider purchasing the product from an installer who can assist you at their service rate. Should you require additional help, they can provide in-person support. Products are pre-assembled by the seller, who should load a startup map to streamline installation and initial startup. DIY installation requires a strong understanding of engine management systems to wire and configure the product accurately. Incorrect installation may result in damage to the product or engine components, for which the owner is responsible.

3. Tuning and Support

Tuning requires specialized expertise, and while a pre-loaded startup map is helpful, it does not replace the need for individualized tuning, as no two engines are identical. If you plan to tune your engine yourself, keep in mind that specialized tools, such as AFR meters and knock-detection equipment, are essential to avoid engine damage. It is highly recommended to work with a professional tuner equipped with a dynamometer (dyno) for best results.

How does Spitronics Products Work

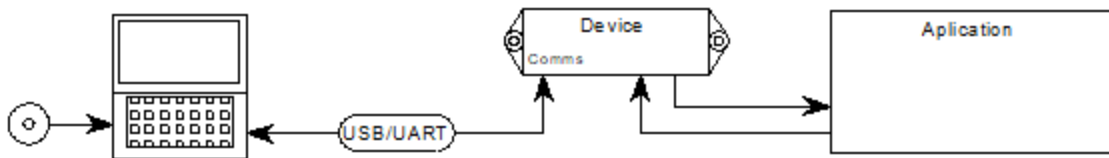
Each Spitronics product, which are called hardware, is Micro based which requires specific firmware programs to initialize the hardware for each type of engine or transmission. It has tuning Maps that adjust parameters and graphs for that engine. To alter the Maps, requires tuning software, so that the tuner can adjust fuel and timing etc. for that application. The product needs to be activated before it will operate.

1. The **firmware** will initialize the hardware to work on a specific engine. This firmware is fixed code and is pre-loaded into the product with the Bootloader. The Bootloader requires a normal USB tuning cable as illustrated in Step 1 below. The firmware programs become available in the software when a live device is connected to it.
2. EeziRider has developed an internet **activation** system to allow dealers abroad to carry stock at a reduced price. Then when the dealer sells to a customer, he will activate the unit in a specific hardware class according to the required firmware for that application. He will need credit on the Portal for the activation. He will load the correct firmware and startup Map for the customer and guide him to the correct drawings and settings. He will test the unit on a simulator and verify that everything is in order to assist the customer. This feature makes the product counter-ready without the delay of ordering the product on demand. This procedure is illustrated in the steps of Step 2 below.
3. The **Hyperspace tuning** software will allow the tuner to adjust his engine to his requirements. This could be performance, economy etc. This tuning data is saved in the product and also in a file called a data Map or a Tune. This procedure is illustrated in the steps of Step 3 below.

Block Diagram of Product interfacing

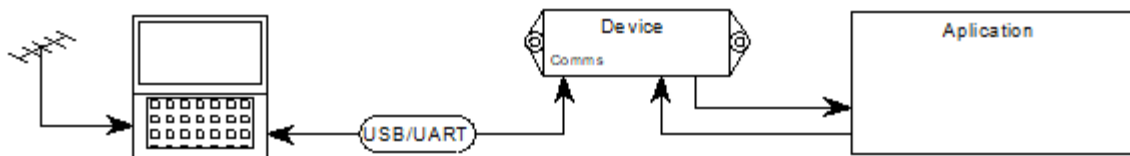
Step 1 – Programming

The dealer must program the relevant firmware file into the device. Orion2 use a bootloader and the normal USB tuning cable. The file extension is **.OTfirm** and is downloaded from the Spitronics website via the Hyperspace software.



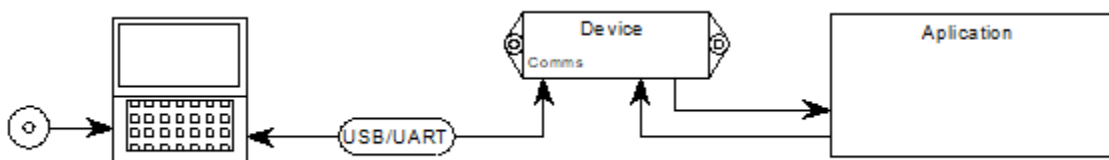
Step 2 – Activation

The dealer must allocate the device for the customer on the Portal and then the dealer or customer must Assign the allocation to the device. The laptop must have an internet connection to do the assigned process.



Step 3 – Setting up and Tuning

The dealer or customer must load a relevant startup map for the customer and then he can start setting up his device. Some startup maps may be on the website or can be supplied by the dealer.



Getting Started with Spitronics Products

To get started with Spitronics products, you'll need the following components:

1. Product Hardware and Accessories

This includes the ECU, control modules (such as idle control and coil igniters), harnesses, MAP sensors, and other accessories for your specific application. Products are available in different classes, each priced according to the features and outputs needed. To select the right class, refer to the selection chart in the [Orion2 Product Information](#) Manual or the [ECU Firmware Numbers](#) chart if you know your engine's crank pattern. For guidance, you can also consult a local dealer or contact sales at sales@spitronics.com.

2. **USB / UART communication cable**

This cable connects your device to a laptop for tuning. Sold separately, it contains the necessary communication electronics, making the device itself more affordable. Windows drivers for this USB cable must be installed before use; please refer to the manual for detailed instructions.

3. **Hyperspace Tuning Software**

This Windows-based software interfaces with Spitronics products and is compatible with all Windows versions from XP onward. A laptop or tablet is recommended, though there is also an Android version for smartphones (note: it has limited functionality due to screen size). Separate software versions are available for each firmware type (e.g., ECU, TCU) to simplify operation.

4. **Startup Map**

Each engine requires a specific startup map to assist with setup. While these maps provide a foundation, minor adjustments may still be necessary to match each engine's unique characteristics. If a specific map for your engine is unavailable, you can modify any existing map to suit your setup.

5. **Orion2 Drawing Manual and Hyperspace Software Manual**

These manuals cover wiring and tuning and are designed for quick navigation. Updated versions are available online and provide comprehensive guidance for both installation and tuning. See the Useful Links section below for access.

Optional Components

1. **Bluetooth Module**

This optional module allows the device to connect to laptops, Android phones or third-party dashboard products. There is Android tuning software available which require the device to be activated for it. The Bluetooth module cannot be used to load firmware on a device.

2. **Dash Display**

There are a dashboard display unit available for these devices that will display the analogue signals like TPS, MAP sensor, water temperature RPM etc in real time.

3. **Simulator**

Recommended for dealers, the Simulator3 assists with setting up and testing customer devices, making it a valuable tool for counter service. It is compatible with all Spitronics products, though different harnesses may be required depending on the device.

Useful links and directions to the info on the website.

Spitronics has two trees on the website of importance.

- One is [Downloads](#) where you will find software and drivers and also old manuals and drawings of older products.

- Then there is [Online Manuals](#) where you will find all the software manuals and drawings of the current products. These manuals can be accessed from the website, from the Tuning Software and from the Android Support App. You will need internet connection. Files can be opened in PDF, downloaded onto your pc or shared to a customer to his phone.

Installation of Software, Drivers and Manual

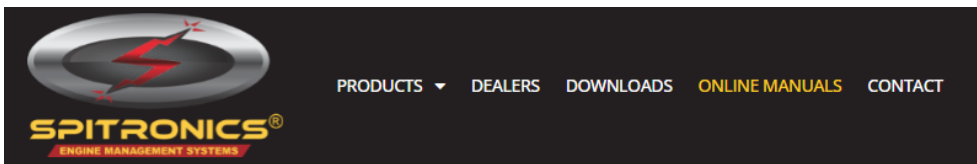
This section has its own manual and you can link to it by clicking on the [How to download Spitronics Software correctly](#) document.

Online Manuals

The Orion2 comes with online manuals which can be accessed from the website, from the Tuning Software or from the Android Support App. There are mostly PDF files that can be read by most media found on phones pc's tablets etc. There are links in these files that will open other files that are relevant. If your browser doesn't support links then try another one. The mobile App will not open links.

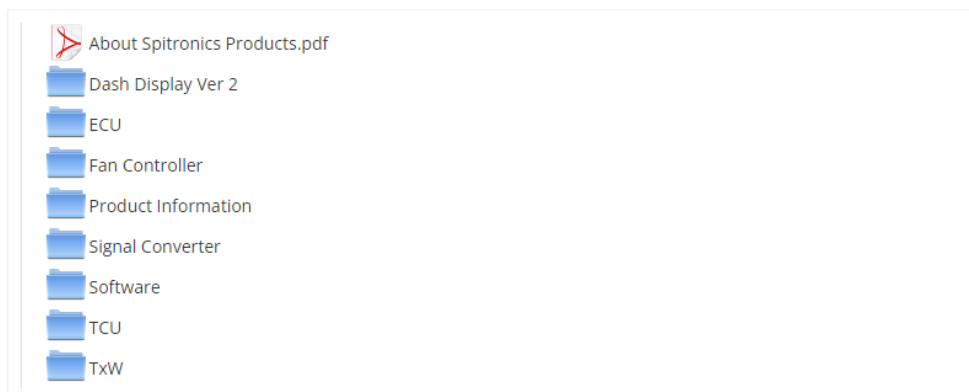
Website

On the website www.spitronics.com go to Online Manuals. Look under ECU and also under Product Information. There will be Orion2 folders which contain all the Orion2-specific files. You may need information from the other topics as well.



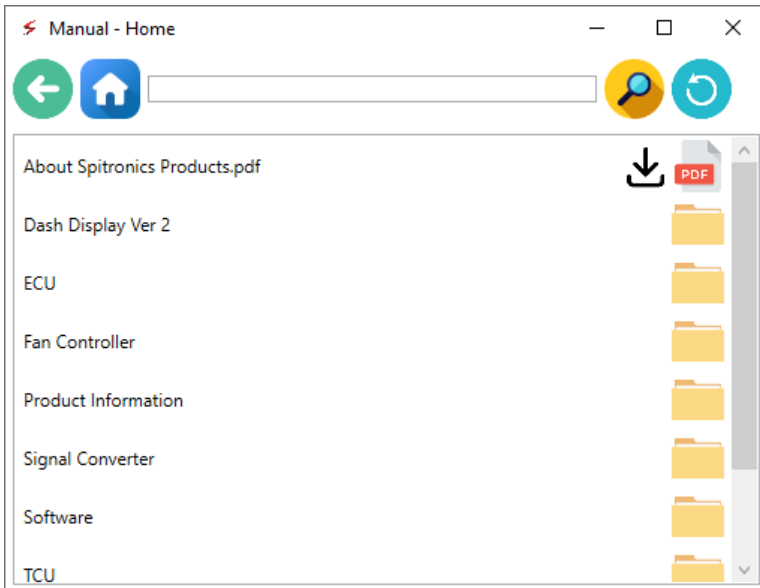
Online manuals

For further support, please [contact us](#)



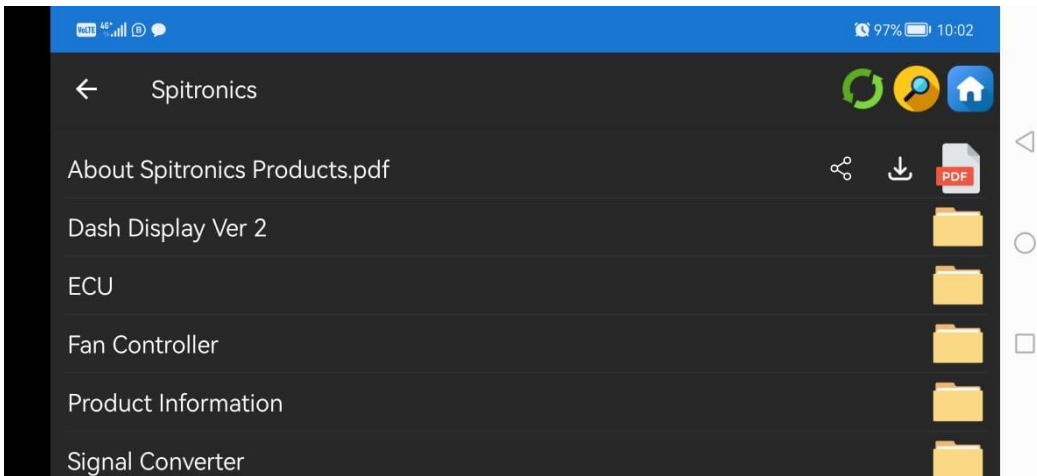
Hyperspace Software

On the tuning software go to the Help tab on top and click on Online Manuals. You will find the same tree as the website although the look is different. Here you can download files to your pc or open files or folders.



Android Support App

On the Mobile App, you open the Support App and click on Spitronics. Again, you will see the same tree as the other two places. Here you can open a file, download the file to the phone memory or share the file to one of the mediums available on your device. WhatsApp is easy as you can also send this App to other phones for them to install.



Connecting a Product to Hyperspace for the First Time

Before attempting installation, make sure you are familiar with the product and related information. Begin by reviewing these key documents:

1. **[Orion2 Safety Precautions](#)**

This section is essential to avoid common mistakes during installation that could potentially damage the unit or engine components.

2. **[Starting an Engine for the First Time](#)**

This document covers necessary engine preparations to ensure a safe initial startup.

3. Next, follow the **[Startup Procedure](#)** as outlined in this manual. Proceed step-by-step without taking shortcuts, as an incomplete setup could result in damage to the ECU or engine components. Each product has a unique startup process, with each step numbered for easy reference. If you encounter an issue at any step, consult your dealer using the step number for specific advice. Do not proceed until the issue is resolved, as ignoring setup steps may lead to unit damage and incur repair costs.

4. Finally, before beginning tuning, refer to the **[Settings Before Tuning](#)** document. This guide will help you establish a base map for safe and effective tuning.