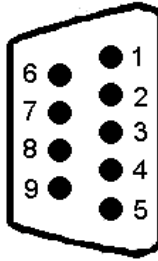


Python Family Installation Card



6 - ISO 9141 - L
7 - CAN High
8 - VBAT+
9 - NC



1 - ISO 9141 - K
2 - CAN Low
3 - J1850 (SCP) -
4 - J1850 +
5 - Ground

Vehicle Connector
9-Pin Plug
(on Python)

Special Note:

The Python adapter's voltage range is 6 VDC to 27 VDC. In order for the adapter to function (both USB and RS-232 versions), power *must* be provided to the VBAT+ pin. Power for this pin is most commonly obtained from the vehicle through the OBDII cable connection.

Note: The 9-pin USB receptacle on the Python will only provide power to the USB portion of the Python circuitry. Power must also be applied to the VBAT+ pin of the Vehicle Connector 9-pin plug on the Python.

Hardware

USB Installation

Below you will find the instructions for installing the Python-USB drivers and software on your PC. Please note that these steps must be followed in order and completed before the Python-USB can function properly with your PC.

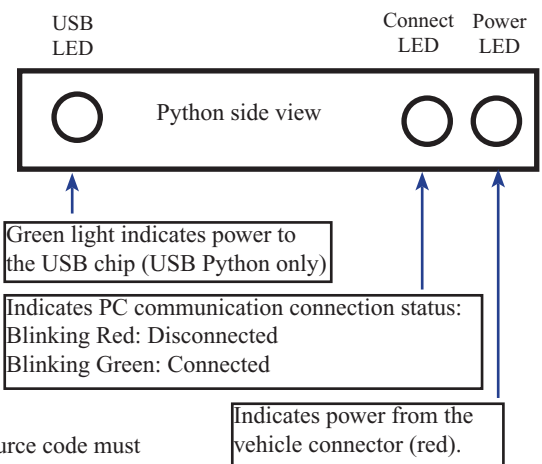
USB driver installation

1. Use the above Vehicle Connector diagram to apply power to the Python (at this time only the power is important).
2. Run the **PythonSetup.exe** program located on the CDROM. This program will install the Python software (Demo, SDK, USB Drivers, and configuration software).

Note: You must run the setup program *before* you connect the Python.

- a. Follow the prompts in the installation package.
- b. At the **USB Install window**: Plug the custom USB cable into the Python 9-pin receptacle and also the USB port of your PC.
- c. You must also apply +12VDC to pin 8 of the Python 9-pin plug. (See *Special Note* above)
- d. Next your PC will detect new hardware and install the USB drivers for your Python. If your PC does not report that it has detected new hardware please check your PC's BIOS to ensure the USB ports are enabled.
- e. Once the USB drivers have been installed, click **OK**.
- f. Next a **Config com port** dialog box appears. Click **Auto Detect**.
The installation software will locate your Python and install the appropriate values into the configuration boxes. If the **Auto Detect** does not find your hardware, ensure the Python has power, this may be done by checking for the red power lights on the side of the hardware.
- g. Once the Python com ports have been configured, click **OK** and follow the rest of the setup programs prompts.

At this point you should be able to connect to the com port listed above with your Python demo software, and be able to communicate to the protocol of your choice through the Python-USB. Python demo software can be found on your hard drive under C:\Python 2534\PythonDemo. This source code must first be compiled.



RS-232 Installation

Below you will find the instructions for installing the Python-RS on your PC.

Note: If you are using a serial mouse and you use the same COM port used by your serial mouse, you must disable the mouse first.

1. Use the provided RS-232 cable to connect your PC to the 9-pin plug on the Python.
2. Use the above diagram to power the hardware and connect to the protocol in use, only the power is important at this time. You must also apply +12VDC to pin 8 of the Python 9-pin plug. (See *Special Note* above)
3. Next locate the **PythonSetup.exe** program located on the enclosed CDROM. This program will install the Python software (Demo, SDK, and configuration software).
 - a. Follow the prompts in the installation package.
 - b. At the **USB Install** prompt, click **OK** to continue with the RS-232 installation process.
 - c. At the **Config com port** prompt, enter the com port number for the RS-232 cable connection, or click **Auto Detect** and the software will configure these settings for you.

At this point you should be able to connect to the Python hardware with your Python demo software and communicate to the protocol of your choice.

Software

J2534 API - Please reference the SAE J2534 specification or sample application

Python J2534 SDK - An interactive software development kit that aids in code generation

Software Limitations

The list provided below are the limitations of the J2534 API.

1. Though the Python supports many protocols, it can only have one protocol active at a time.
2. Class 2: Block Transfer Mode is not supported.
3. ISO9141: IOCTL: SET_CONFIG: , PARITY are not supported.
4. All functionality that requires setting or reading of voltage on a particular pin is not supported. This includes:
 - a) PassThruSetProgrammingVoltage()
 - b) IOCTLs: READ_VBATT (supported only on hardware versions 1A and higher)

► **Python-USB includes:**

- Python USB hardware
- Low level device drivers (J2534 API)
- USB adapter cable

► **Python-RS includes:**

- Python RS hardware
- Low level device drivers (J2534 API)
- RS-232 cable

Specifications

Size	90mmx50mmx23mm
Weight	70g
Power consumption	
Vehicle Supply	200mA
PC interface	100mA
Operating voltage	6-27 Volts, reverse and overvoltage protected
PC Connections	
RS232	up to 38.4K baud rate, optoisolated
USB	Version 1.1 (Full Speed), optoisolated
Vehicle Connections	
CAN	ISO 11898 (up to 1Mbps, ISO 15765, SAE 1939
J1850 VPW	10.4K, single-wire, supports block mode
J1850 PWM	41.6K
ISO 9141-2	Maximum baud rate 10.4K, K & L, 5baud and Fast wake up
CE approved	

Technical Support

In the U.S., technical support representatives are available to answer your questions between 9 am and 5 pm EST. You may also fax or e-mail your questions to us. Please include your telephone number for rapid assistance. Non-U.S. users may choose to contact your local DG representatives.

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