Perfect Power

www.perfectpower.com

Product Catalogue

1 INTRODUCTION

Perfect Power specializes in the design and manufacture of fuel injection systems for every application from your everyday streetcar to your high-tech performance car. All Perfect Power products are powerful "real time" programmable fuel injection and ignition computer systems. The Perfect Power range of products falls into two major categories: Stand Alone Systems and "Piggy Back" or Add-on Systems. Perfect Power is marketed worldwide by Digital Data Systems (Pty) Ltd from South Africa. Visit our website, www.perfectpower.com for more information.

Stand-Alone Systems	"Piggy Back" Systems (also known as Add-on Systems)
A stand-alone fuel injection system controls all engine functions and means that the engine does not require any other ECU to operate. A stand-alone system, such as the PRS, Xms and the TIC from Perfect Power, can be seen as a replacement of the original ECU and uses almost all standard input sensors. The stand-alone system is totally self-sufficient and manages its own "real time" fuel and ignition outputs from various inputs from the engine.	A "piggy back" or add-on system is a unit that works off an existing ECU in the vehicle. It relies on another ECU to be present. A typical Perfect Power "piggy-back" or add-on system will manipulate the input or output signals of the existing ECU and within the constraints of the ECU will allow "real time" adjustment of fuel and ignition. This improves power or fuel consumption and drivability.

1.1   Who would use a Perfect Power Product?

Anyone who needs to have "real time" control over the engines performance and tuning fuel and ignition in order to achieve the optimized requirements of the engine via a computer.

1.2   Why use a Perfect Power Product?

Perfect Power has been involved in the fuel injection industry since 1984. Each of our products have years of experience built in, providing the best fuel injection solution for today's needs. We also have a library containing 500 + wiring diagrams for different vehicles to assist you in your installation.

1.3   History

Our founder, Klaus Ludwig, recounts how he got involved with fuel injection systems:" It all started back in 1984. Someone gave me a fuel injection system for repair. I was amazed at how simple the design was. The first unit I designed and manufactured was installed into a 4x4 vehicle. I got more hooked when started to win challenges. I bought a 4x4, fitted our fuel injection system, race prepped it, entered it in "Off-Road Racing". I only managed to complete 1 out of 3 races covering more than 3000km in Southern Africa. Although we lost brakes, had the prop shaft go through the sump, had a seized fuel pump, broken shocks and buckled rims, the one thing that didn't brake was the fuel injection computer! It was built to last. We have come a long way since then and now produce a wide range of engine management systems for every application. The systems produced now are so much more sophisticated, keeping in line with the latest engine technology.

Back in 1984 you could set a fuel injection system, by turning 3 screws. Now, with environmental awareness and fuel economy demands coupled to performance, it is impossible to tune a car with 3 screws. You need a laptop or personal computer! The latest cars have engine management systems, which are tamper proof and very difficult to modify. A new type of "Piggy-back" system is used instead, which leaves the original system intact, and rather enhances the engine performance in certain areas. I believe that the street legal performance will, in future, be more technically demanding. This is where I see my challenge - clean, efficient performance - this is what **PERFECT POWER** stands for!

Perfect Power has become an established brand name, which all professional and private vehicle performance enthusiasts have come to rely on. All our products are made from the highest quality material and the latest electronic components, resulting in extremely reliable fuel injection systems."

2   PERFECT POWER MARKETING CONCEPTS

We market our products in two domains, namely the "Public" and "Private Label" domains.

Currently we market our products in the **Public Domain**. Features include:

• The tuning software is free to download from the Internet. This means that the end-user can re-tune the unit (overwrite the tune map) and the wiring diagrams are obtainable. The products available in this domain are competitively priced. An example of a product in this domain is the SMT6.

A new way of marketing our products is the **Private Label Domain**.

You may want to prevent someone else re-tuning a car that you have successfully tuned. You may also want your customers to return to you for continued business. You may find that it would be ideal to have the same technology with extra features, but with your own product name and corporate identity, especially if you are dealing with larger quantities. The **Private Label Domain** is for you. Features include:

The **Private Label Domain** will have certain products, which will be made available to Perfect Power Dealers only and will have your company details, logo and product name. If you are not a Perfect Power Dealer, and are still interested in a product, you can register as a Dealer at no extra cost.

An example of a **Private Label Domain** product is the SMT6-D.
The tuning software will not be available for free from the Internet. It will be purchased as part of a Start-Up Package. The software will have your company details and logo, as well as your choice of a product name. The products will not have a label, giving you the opportunity for you to put on a label of your choice. Your end-customer will see the product as your very own! A small reference to Perfect Power will however remain, embossed on the side of the unit. No one else will be able to tune this personalised unit; only you will be able to. The software will also have a feature known as "Software Spawning". This means that you can make a copy of the software for your end-customer but only allow parts of it to be viewed or modified with a security key.

The products in this domain will offer improved hardware and software features, to set it apart from the products in the **Public Domain**.

This domain is aimed at those Dealers who want their own product and sell large quantities. A small upfront investment fee is required for the Start-Up Package, and a minimum quantity applies for additional units.

3 PRODUCTS

3.1 Stand Alone Systems

3.1.1 PRS - PRO RACE SYSTEM

The PRS products are the result of 13 years of product refinement and include the latest firmware development from the SMT6 "piggy back" or add-on system. The PRS range is an extremely powerful, fully programmable "real time" full stand-alone fuel injection and ignition management system. The PRS system consists of three hardware configurations:

PRS2 100mm (L) x 70mm (W) x 30mm (H)
PRS4 100mm (L) x 100mm (W) x 30mm (H)

These two configurations share the same functionality, but have different input and output capabilities, listed below:

CAPABILITY	PRS2	PRS4
Injector drivers	2	5
Ignition drivers	2	3
Auxiliary drivers	1	-
Rev counter output	-	-
Engine temperature input	1	1
Air temperature input	-	-
Launch control input	-	-
Map switch input	1	1
Lambda input	1	1
On board LED's	-	-
Fault led drive	1	1
5 volt source	1	1
Fuel pump relay drive	1	1
Throttle input	1	1
AMP input	1	1

PRS2, 4, Kits

Each PRS configuration has function assignments on the output wires. This allows you to use any unused wires for other required functions, such as 2 or 3 wire idle motor, nitrous PWM, rev counter output, rotary leading output and more. There are 32 functions in total, where the PRS2 can assign 4 outputs, the PRS4 can assign 8 outputs.

The PRS is capable of calibrating the input signals of most existing sensors in the vehicle and thus results in an affordable alternative.

PRS PRODUCT ITEMS & ACCESSORIES

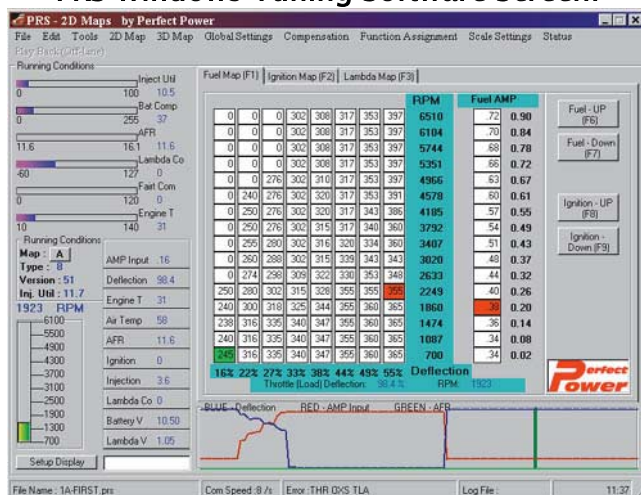| PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
PRS2-KIT or **PRS4-KIT**	PRS2 or PRS4 Box with electronics PRS2/4 Harness (Wiring Loom) CD with PRS Software & Manuals PRS/MIC3 Comms Cable Printed Installation Guide	**PRS-COMS** **AIR-TEMP** **ENG-TEMP** **TP-SENS** **PRS2/4 -HARN** **AMP-2** **IGN-AMP**	Communication Cable Air Temperature Sensor Engine Temperature Sensor Throttle Position Sensor PRS Harness (Wiring Loom) MAP Sensor (2.5 Bar) Ignition Amplifier

FEATURES OF THE PRS SYSTEMS

• 2 Maps, each 765 sites • 2,3,4,5,6,8 cylinders - non wasted spark applications • 2, 4, and 6 cylinders - wasted spark applications • Up to 10 000 RPM when configured at 8 cylinders, 16 000 RPM in 4 cyl mode. • Idle control for 2 to 3 wire idle drive • CAM switching driver • Fuel pump activation • Lambda monitor, partial or closed loop control • Configurable map site scales • Temperature and manifold pressure calibration to any map sensor inputs • Retard and advancing from a base point • RPM and boost fuel limit • Max boost and RPM recording • Turbo lag compensation option • Sequential, batch sequential and parallel injection • 5 Built-in injector drivers up to 6A	• Throttle and RPM calibration: Choose your own sites • Temperature and manifold pressure calibration to any external device • Wasted spark on normal ignition • 2 Trigger inputs, polarity adjustable • Boost control • Fan control • Two tunable maps • Easy to tune - Windows graphical displays • DOS and Window software tuning • Nitrous control • Rotary ignition • Rev counter output • Air and engine temp inputs with auxiliary outputs • Throttle input with auxiliary outputs • 2 x RPM auxiliary outputs • Full extra injector control (staged injection) • Check Engine light output

PRS FACTS

- A certain amount of electronics and technical knowledge is required when installing any PRS unit.
- All PRS units are fully tested and checked before being shipped. Units manufactured after 01 July 2003, will have a serial number and Test Certificate.
- Wiring harness (Wiring loom) comes fully assembled and needs to be wired up to the engine. It then needs to be plugged into the PRS.
- The MAP sensor for measuring AMP (Absolute Manifold Pressure) has been specially made for the PRS but can also be used by other fuel injection units.
- The Comms cable provided with the PRS unit is extremely important and no other communications cable should be used. Other cables that look similar could damage the PRS unit.
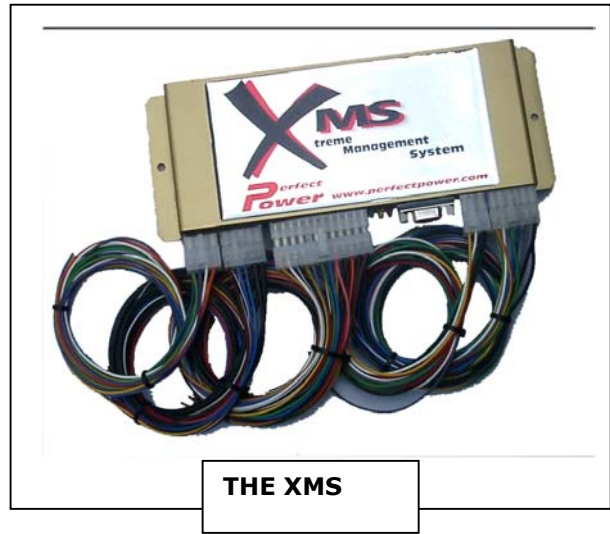- The CD includes all manuals and documents to assist with the installation.

PRS Windows Tuning Software Screen:

3.1.2 XMS – XTREME MANAGEMENT SYSTEM

The XMS (Xtreme Management System) has many more features and functions with the latest processor technology. The XMS has pre-assigned ignition and injection outputs for ease of wiring. With newly designed software made to be user friendly and logging features plus unit onboard drive history. With 4 ignition, 8 injection and 8 auxiliary outputs to choose from. The auxiliary outputs have 16 functions to choose from or even be combined to do a desired function.

The XMS uses wide and narrow band lambda for closed, open or partial closed loop operation. With idle control, engine temp, air temp, rpm and manifold pressure to ease with tuning for all conditions. Launch control is a standard feature for the XMS. Having temperature, manifold pressure, rpm, boost, ignition, injection settable limits and field upgradeable firmware, the XMS is the ultimate in aftermarket engine management systems.
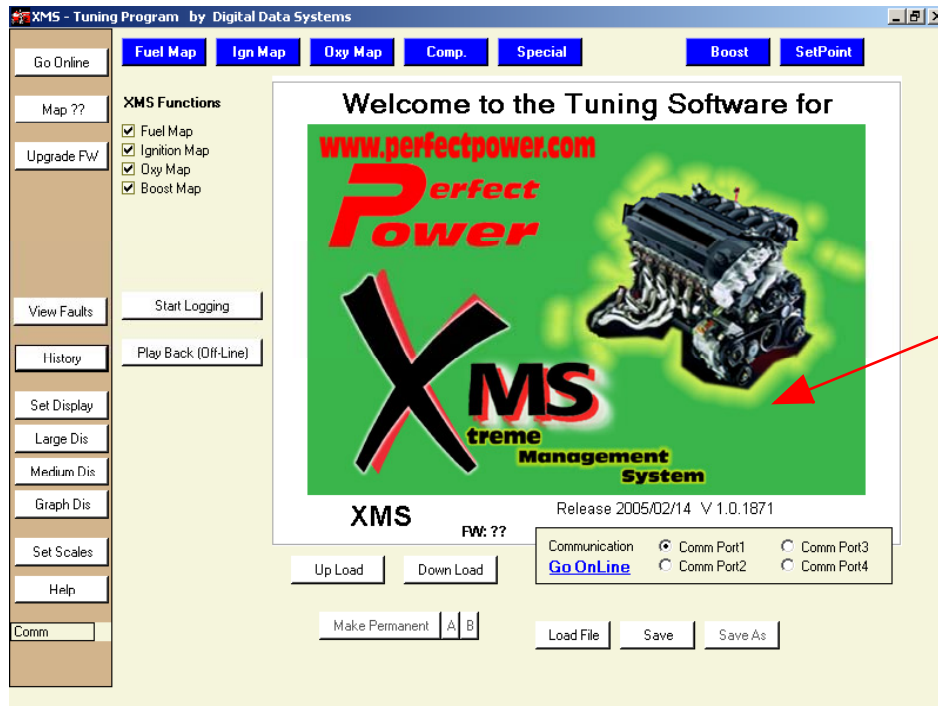
THE XMS

XMS PRODUCT ITEMS & ACCESSORIES

PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
XMS –KIT	1 X XMS Box with electronics 1 X XMS Harness 1 X CD with Software & manuals 1 X Printed Installation Guide 1 X Mega Spark Amplifier	**AIR-TEMP** **ENG-TEMP** **WBC** **Mega Spark** **XMS Harness**	Air Temperature Sensor Engine Temperature Sensor Wide Band Lambda Mega Spark XMS harness

FEATURES OF THE XMS

- 8 direct injector drives, up to 6amp each
- Ignition for 4,6,8 cylinders wasted spark
- Positive active output to suit most commercial drivers
- Acceleration enrichment with 16 map sites
- Separate CRANK (CB1) and CAM (CB2) inputs
- Built-in Wide Band lambda circuit for BOSCH LSU4
- Partial or complete loop operation
- +5 Volt output to power manifold pressure and temperature sensors
- Electronic boost controll

- 16 set point function
- Each set point has a high/low limit
- Each set point can be linked to ONE other set point
- Two-layer fault and condition indication: GROUP and ITEMS
- Driving history is recorded in minutes per main map site
- The XMS can be upgraded in the field
- The XMS has two complete maps of EVERYTHING
- All inputs can be calibrated to suit your sensors and the engine

The XMS Windows Tuning Software Main Screen

Main Screen
with Logo

3.1.3 THE WBC

The function of the WBC (Wide Band Controller) is to "operate" a BOSCH LSU4 wide band lambda sensor for the acurate measurements of AFR values. The WBC indicates AFR via a LED bar graph, these LED's show AFR from 10.8 to 20.0 AFR via a linear 5V output. Indicated with three different colours for quick and accurate readings. The WBC is supplied with a BOSCH LSU4 probe and harness. The WBC's on board processor ensures excellent response and accuracy across the entire range and under most operating conditions. With processor controlled LED fault warning indications, this unit is a must for all performance installations.
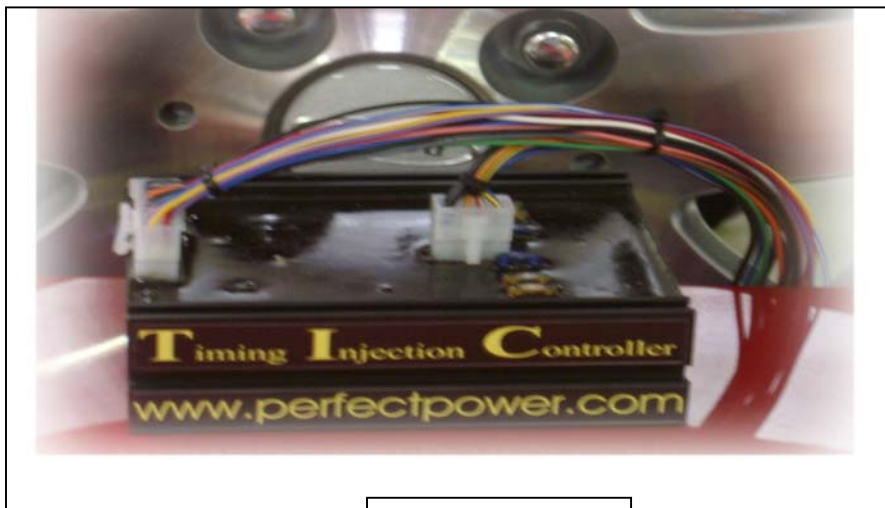

The WBC

WBC PRODUCT ITEMS & ACCESSORIES

PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
WBC – kit	1 X WBC 1 X WBC Harness 1 X LSU4 Sensor 1 X LSU4 Harness	**LSU4-Probe** **LSU4-CON**	Wide Band lambda probe LSU4 LSU4 connector with pins

FEATURES OF THE WBC

• Small size • Temperature controlled heater circuit • Indication of heater and sensor malfunction • External fault reporting	• Linear 0-5 volt output reporting AFR • High-resolution lambda conversion • Bar graph AFR indication • Low power consumption

3.1.4 THE TIC

The TIC (Timing Injection Controller) is designed by Perfect Power for the 4cyl market. This 6 channel unit has pre-assigned ignition and injection outputs for easy wiring. Then two pre-assigned auxiliary outputs for boost control and rev counter. This robust unit offers fused protection on each of its 6 outputs and ignition drivers rated at 12amps. The TIC's software is easy to use, tuner friendly and is compatible with most windows packages and has an all-new history-recording feature plus data logging. The TIC is now field-upgradeable for any new releases. With lambda input tuning is made easier and quicker, programmable to run open or closed loop.

THE TIC

ACCESSORIES

PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
TIC - Kit	1 X TIC Box with electronics 1 X TIC Harness 1 X CD with Software & Manuals 1 X Comms Cable MIC3, PRS 1 X Printed Installation Guide 1 X Manifold Pressure 2.5 bar	**MIC3-COMS** **AIR-TEMP** **ENG-TEMP** **AMP-2** **IGN-AMP** **WBC**	Communication Cable Air Temperature Sensor Engine Temperature Sensor MAP Sensor (2.5 Bar) Ignition Amplifier Wide Band Controller

FEATURES OF THE TIC

• 2 Direct injector drives, up to 6 Amp each • 16 sites for manifold pressure • 16 sites for Engine temperature • 2 ignition outputs direct drive up to 12Amp • All inputs balanced (floating) for highest noise immunity • Narrow/Wide band AFR display • All inputs can be calibrated to adapt to the existing sensors of your engine • The TIC has a powerful fault reporting facility	• Allows for turbo waste gate control • The TIC's firmware can be upgraded via the internet. • The TIC has two complete maps of all parameters and their programmed variables. • Maps can be switched while driving • The TIC records the max RPM, max engine temperature, max air temperature, and max manifold (AMP) pressure

The TIC Windows Tuning Software Main Screen

3.2 "PIGGY BACK" OR ADD-ON SYSTEMS

SMT6 – SMART TUNER

SMT6 – 5 Unit Development Kit

The Smart Tuner 6 (SMT6) is a "piggy back" or add-on system, which needs to be added to an existing Engine Management System or ECU (Engine Control Unit). Its purpose is to make the existing system "tunable", without any chip changes and without touching the original ECU. To revert the vehicle back to its original state and thus making the "piggy back" or add-on system undetectable, a shorting strap or plug can be used. The SMT6 has been designed to allow you to tune any engine. Signals are modified on maps found within the unit and with the Windows Tuning Software can be tuned on either a 2D or 3D map Tuning is simple and fun and, once the SMT6 is installed it can be re-tuned by anyone with a laptop and the tuning software. If the original installer does not the unit to be re-tuned, the "No-Tune" option can be activated in the software, which means that the settings will be locked and hidden. Tuning can be done "real time", while the car is running and it is not necessary to send the SMT6 unit back if a tune map needs to be changed.

The average SMT6 installation consists of 6 wires connected to the vehicle's original wiring harness or loom. Then change the settings of the unit in the setup section of the Tuning software and you will be ready to re-tune the vehicle.

PRODUCT CODE	PRODUCT DESCRIPTION	CODE	ACCESSORY DESCRIPTION
SMT6-KIT	SMT6 Box with injector driver SMT Harness (Wiring Loom)	**SMT-COMS**	Communication Cable
SMT6-UKIT	1 x SMT6 Box with injector driver 1 x SMT Harness (Wiring Loom) 1 x SMT Comms Cable 1 x SMT Shorting Plug 1 x CD with SMT6 Software & Manuals	**SMT6-SHORT** SMTU5-HARN **TEST-U6**	SMT Shorting Strap/Plug SMT Harness (Wiring Loom) SMT6 Test Jig

FEATURES OF THE SMT6

• Throttle Sensor learning feature • Fuel, Injection and Ignition maps with 128 sites • 6 Amp injector driver • Selectable trigger points • Selectable polarity • Balanced inputs • Ignition output signal • RPM / Airflow / Analogue Deflection / Temp Switch points • Able to switch between two tune maps • Lambda tuning • Can store and playback recorded tuning run • Easy tuning Windows software	• RPM Calibration with high RPM range • 0 – 10 Volt analogue range • Various ignition outputs • Programmable cylinders • Can handle interlaced signals • Missing tooth signal • Adjustable dwell time • Settable fuel high low limits • Signal conditioning • Proportional nitrous control • High speed internal computer power • Small size • Low battery drain • Self-checking test available

The size of the SMT6 unit is:
70mm (L) x 70mm (W) x 15mm (H)

SMT6 Windows Tuning Software Screen:

SMT6 DEVELOPMENT KIT INFORMATION

The SMT6 Developer's Kit contains all the necessary items for a successful SMT6 Installation. The useful Test Jig is included in the kit, as well as the Shorting Plug. The CD includes Software, Manuals and also a comprehensive list of wiring diagrams and engine specific files.

ENGINE SPECIFIC FILES	A file describing the technical engine parameters e.g. connections, signals, polarity, etc. The map portion of the file, describes how the engine is tuned and what the fuel and ignition requirements are. The SMT6 holds TWO Tune Maps, for example Map A = Economy and Map B = Power. Each Tune Map consists of a fuel, ignition, and injection map. These sub-maps can be tuned within preset limits.
BRANDING (optional)	The SMT6 can have minimal "branding" on the software only.
WIRING DIAGRAMS	A comprehensive list of Wiring diagrams is available as a guideline.
EXTRA INJECTOR ACTIVATION	A set of injector can be activated from a special injection map in addition to the standard injectors activated by the ECU. The SMT6 holds TWO Injection Maps.
AFR (LAMBDA) DISPLAY	The SMT6 has an extra lambda input. If your engine has a four wire AFR probe, then the reading can be displayed on the Windows Tuning Software with only a narrowband sensor.
LAMBDA TUNING	Advances in the SMT6 now allow users to modify engines that run closed loop lambda.
GRAPHICAL DISPLAY	The Windows Tuning Software has a 3 channel input/output graphical display in real-time.
DATA LOGGING	All software (DOS and WINDOWS) can log the engine performance to a file for later display and analysis by other software.
AUTOMATED TESTING	The SMT6 can be tested in the field with the SMT6 Test-Jig.
TEST DATE STAMPING	All units are computer tested, and date stamped. The pre-delivery test is also recorded, and there is space for 4 more Dealer or Customer date stamping.
EXTENDED ANALOGUE INPUT/OUTPUT RANGE	The SMT6 has a 0-10 volt analogue input and output range.
TUNE MAP IDENTIFICATION	The name of the tune map can be stored with the tune map onto the SMT6 unit.
MAP SWITCHING	The Two tune maps can be switched while driving via an external toggle switch.

SMT6 FACTS

- A certain amount of electronics and technical knowledge and is required when installing any SMT6 unit.
- A Wiring Diagram or Schematic is required to install an SMT6 unit. Consult with Perfect Power when creating your own Wiring Diagram or Schematic.
- The units are shipped "blank", without any file or maps loaded.
- Developer's Kit includes the Test Jig which is useful to confirm whether your SMT6 is working or not at any point in time.
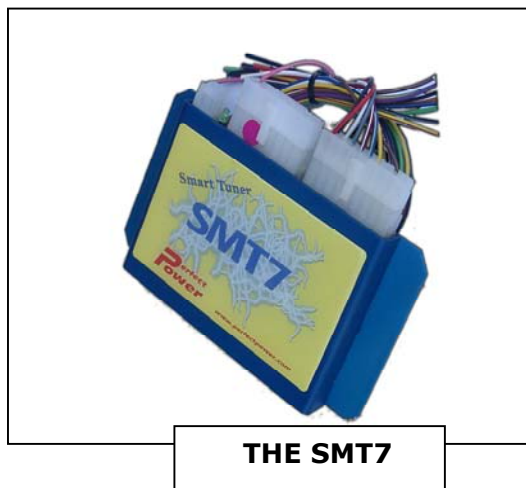
DETAILS OF ACCESS TO YOUR SMT6 UNIT

The SMT6 unit is sold as an open unit, which can be tuned by anyone with the Windows Tuning Software and a laptop

GLOBAL SETTINGS:		Specifies the engine setup		
MAP "A"	**:**	Fuel "A"	**MAP "B"** :	Fuel "B"
		Ignition "A"		Ignition "B"
		Injection "A"		Injection "B"

3.2.2 SMT7 – SMART TUNER

The SMT7 (SMART TUNER 7) is a "piggy back" or add on system that can be added to an existing engine management system to fine tune fueling and ignition signals. Running parallel to the renowned SMT6, together they will both cover a wider range of engines. Some new features of the SMT7 include more user friendly software (Windows XP), boost control, three analog maps, wide band lambda, extra injection maps, launch control, onboard logging and is field upgradeable.

THE SMT7

The software features help keys on every screen. Also a unique way of computing crank signals allows the SMT7 to do crank signals that could never be done before. Fuel tuning is done via the air flow meter or map sensor. For aftermarket turbo conversions, fine-tuning factory settings, mapping boost, tuning lambda and performance engine mapping, you need the SMT7!

PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
SMT7-KIT	SMT7 Box with two drivers SMT7 Harness with loose pins	**SMT7-COMS** **SMT7-WIRE**	Communication Cable SMT7 Bundle of 10 wires, crimped
SMT7-UKIT	1 x SMT7 Box with two drivers 1 x SMT Harness with loose wires) 1 x SMT7 Comms Cable 1 x CD with tuning software 1 X Printed Installation Guide		

SMT7 FEATURES

All the SMT7 features can be operated simultaneously. Features can be switched off, and individual side maps can be disabled. Of course, all inputs and scales can be calibrated and adjusted to suit the user.

• AFR MODIFICATION - can operate in two modes: NARROW BAND WIDE BAND • Can operate in 16 modes relating to trigger patterns • AFR LOOP • BOOST CONTROL allows the control of the turbo boost pressure in a previous non-boost controlled car. • An extra input allows traditional launch control • Has two COMPLETE maps, which allows for different calibration and different global setting between map A and map B	• Transmits 28 inputs and computed variables • Communications protocol has changed to be compatible to WINDOWS XP • Can log the time operated in the main map • Help is online and consist of subject orientated help pages • Records: Maximum RPM, Maximum MAP, Maximum Engine temperature, Maximum Air temperature • Field upgradeable • 2 Analog modifications • Can drive one 13 ohm injector directly

4   PRIVATE LABEL PRODUCTS

4.1   SMT6-D – Smart Tuner 6 – DEALER

The SMT6-D is a product in the Private Label domain. Perfect Power designs and manufactures this product, but you have the choice of giving it your own product name and including your company logo and details on the product, including the software.

A Start-up Package needs to be purchased first and thereafter, additional units can be purchased in quantities over 5 kits. The SMT6-D has all the current features of the SMT6, PLUS additional features.

SMT6-D Start-Up Package

SMT6-D Additional Unit Kit

SMT6-D Unit Size:
70mm (L) x 70mm (W) x 15mm(H)

4.1.1   ADDITIONAL FEATURES OF THE SMT6-D

- Your own Product Name
- No Public software
- No Public access
- Neutral grey housing to match any colour label
- Private labels
- Software Spawning – Sell Tuning Software versions
- Installation wizard
- No recommended retail price
- More graphical displays
- Lambda loop control, with narrow band lambda option
- History recording
- Quick start
- Can be used as a free standing ignition controller
- Can be used as a Turbo fueller

A DEMO VERSION of the SMT6-D is available on CD. This version will give you an idea of what this product is all about. Please contact info@perfectpower.com should you be interested in obtaining a copy of the DEMO VERSION.

PRODUCT CODE	PRODUCT DESCRIPTION	ACCESSORY CODE	ACCESSORY DESCRIPTION
SMT6D-STAR	5 x SMT6-D Grey box with injector driver 5 x SMT Harness (Wiring Loom) 1 x SMT Comms Cable 1 x SMT6 Test-Jig 5 x SMT Shorting Plugs 1 x CD with Software (Updates included in price for 1 year from date of purchase) 1 x CD with Manuals & Spawning Software 1 x Floppy with Security Key 1 x Printed Installation Guide	**SMT-COMS** **SMT6-SHORT** **SMT6-HARN**	Communication Cable SMT Shorting Strap/Plug SMT Harness (Wiring Loom)
SMT6D-KIT	1 x SMT6-D Grey box with injector driver 1 x SMT Harness (Wiring Loom)		

5   ACCESSORIES
(Please note the photos shown are <u>not</u> to scale)

5.1   PRS ACCESSORIES

5.1.1   SENSORS

AIR-TEMP - Air Temperature Sensor

Normal NTC temperature sensor specially encased for easy airflow and threaded for easy installation.
Complete with 1m harness and connector.

ENG-TEMP - Engine Temperature Sensor

Normal NTC temperature sensor specially inserted into brass case and threaded for easy installation.
Complete with 1m harness and connector.

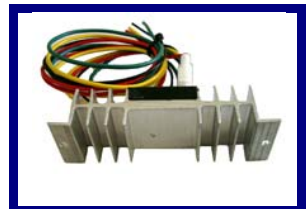#### AMP-2 - Manifold. Press 2.5 bar (MAP Sensor)

Available in 2.5 bar. 12V Regulator onboard, regulating 0.5V output.
Complete with harness.

5.1.2   AMPLIFIERS

IGN-AMP - Ignition Amplifier

4 Wire, 7A ignition amplifier for inverting and non-inverting applications. Fully sealed and mounted on heat sink with mounting holes. Complete with harness.

MEGA SPARK – Ignition Amplifier

2 way channel amplifier. Each channel can deliver 26 amps and controls dwell and have a temperature cutout circuit for protection. Designed for high current coils or multiple coil systems, also for high revving and high boosted turbo charged engines.

5.1.3   Inverter

INVERTER

Can be used for any type of switching signal. This is a four-channel inverter. There are 2 drivers on board for driving aux functions.

5.1.4 COMMUNICATION CABLES AND HARNESSES

PRS-COMS Communication Cable

Special RS232 communication cable for use with PRS, XMS units.
WARNING: Do not use other RS232 cables with the PRS units.

PRS2-HARN, PRS4-HARN - PRS 2 and 4 Harness (Wiring Loom)

Harnesses (Wiring Looms) are 600mm long. Special orders can be placed for longer harnesses.

5.2 SMT6 ACCESSORIES

SMT6-HARN – SMT6 Harness (Wiring Loom)

Harness is 600mm Long. Special orders can be placed for longer harnesses.

SMT-COMS – SMT6 Communication Cable

Special RS232 communication cable with a special adaptor on one end for use with the SMT6 unit.
WARNING: Do not use other RS232 cables with the SMT6 units.

TEST-6 - SMT Test Jig (Device)

The Test Device is used to check the operation of the SMT units, especially on receipt of the SMT6 unit. If the tests pass, the date of the test is written onto the SMT6's memory.

6   PROMOTIONAL ITEMS/MARKETING MATERIAL

COASTERS

Rubberized coffee coasters

STICKERS

Perfect Power Bumper Stickers

SHIRTS

Perfect Power shirts in Navy with Red Perfect Power logo (front and back).
Available sizes: M, L, XL, XXL

PIT SHIRTS & MATCHING CAPS

Perfect Power pit shirts in black with red and grey. 100% Cotton
Available sizes: M, L. Other sizes available on order.
Caps available in one size fit all.

BANNERS

Perfect Power Banner digitally printed on PVC. Ideally suited for any workshop environment.

7 SHIPPING AND RETURNS POLICIES

7.1 SHIPPING POLICY

Our shipping prices are not included in the product prices. All shipping costs are included in the invoice to the Dealer before we ship any products. If a Dealer prefers, he may use his own shipping company on his own account. A letter from the Dealer will be required to authorize us to use his shipping company on his account.

We are experienced at shipping our products worldwide from very small to large parcels. We also ensure that you get the best rate possible.

7.2 RETURNS POLICY

Any return needs to be authorized in advance. Please contact us on +27 11 792 9805, or info@perfectpower.com for an authorization number.

When returning any of our products, please use either of the following methods:

For returns via the postal service: Digital Data Systems (Pty) Ltd
P O Box 35872
Northcliff
2115
South Africa

PLEASE ENSURE THAT YOU INCLUDE A ZERO VALUE AND A DESCRIPTION OF "REPAIR" FOR CUSTOMS PURPOSES.

For returns via a shipping company: Digital Data Systems (Pty) Ltd
22 Arbeid Avenue
Strijdom Park
Randburg
South Africa

PLEASE ENSURE THAT YOU INCLUDE A ZERO VALUE AND A DESCRIPTION OF "REPAIR" FOR CUSTOMS PURPOSES.

All returns must be sent pre-paid and no collect shipments will be accepted. Please insure the parcel for its full value.

Once we receive the returned products they are checked and tested for any manufacturing faults. If we determine that there is a manufacturing fault, we will refund the shipping or postal costs.

We cannot accept returns on custom made parts. We also cannot accept returns on parts that are:
- Custom made
- Used, installed or damaged by oil, coolant or fuel
- Not in their original packaging

8 WARRANTY

Perfect Power unit(s) come with a 12-month warranty from shipment date, on the electronics, excluding the power drivers.

The warranty will fall away if:
1. The unit(s) has/have been tampered with.
2. The unit(s) has/have been abused, misused or incorrectly maintained.
3. The unit(s) has/have been incorrectly installed.
4. The unit(s) was/were not tested on receipt.

If the unit(s) was/were damaged in transit, then the Distributor or Dealer from whom the unit(s) was/were purchased, will replace it as soon as possible.

Please note that if the unit(s) has/have been working fine for a while and then fail(s), it could be because of one of the following:

- The unit(s) has/have been damaged in installation. (Not covered by warranty)
- One of the internal power driver(s) has/have been destroyed. (Not covered by warranty)
- Malfunction of electronics. (Covered by warranty)

The damaged unit(s) will need to be sent back to the factory, by your Distributor/Dealer, for inspection. A new unit(s) need(s) to be purchased to replace it. If the problem is a manufacturing fault, the unit(s) will be replaced and shipping fees will be refunded. However, Perfect Power will not be held liable for the cost of removal, re-installation, dyno time and mapping of the unit(s).

Perfect Power unit(s) need(s) to be returned to your relevant Distributor/Dealer before any claims procedure can begin.

PLEASE NOTE: The PRS and SMT units CANNOT be repaired.

8.1 WARRANTY DISCLAIMER

Under no circumstances will Perfect Power be held responsible for any incidental, indirect, specific or consequential damages arising from the use of the unit(s).

9 TECHNICAL SUPPORT & TRAINING

We offer Technical Support via telephone, fax or email and aim to respond within 24 hours during weekdays (Monday to Friday) and 48 hours over a weekend or 36 hours over a public holiday in South Africa.

If required, our Technical Support Team at Perfect Power, is available to travel to your location worldwide, to offer training and technical assistance. Fees for travelling and training can be requested by emailing info@perfectpower.com.

10 PRODUCT CATALOGUE DISCLAIMER

The material contained in this catalogue is for general information only. We take no responsibility for any loss incurred in reliance on the information contained herein. We reserve the right to alter product specifications and features without prior notice. You should always verify any information before you make any decisions by contacting us at info@perfectpower.com.

11 CONTACT INFORMATION

Visit our comprehensive website at **www.perfectpower.com** for more product information, downloads, technical information and contact details of our local and international Distributors and Dealers.

Perfect Power is marketed by:

digital data systems (pty) ltd **dds**

Physical Address:

22 Arbeid Ave, Strijdom Park, Randburg

Postal Address:

P O Box 1577, Bromhoff, 2154

Tel: +27 11 792 9805

Fax: +27 11 792 9818

Email: info@perfectpower.com

URL: www.perfectpower.com