

#### AMM - IMMOGNITION I&II

#### - THE MILLENIUM SERIES -

# PROFESSIONAL FIELD-PROGRAMMABLE HIGH-RESOLUTION HIGH-ENDURANCE DUAL-/SINGLE-FIRE ELECTRONIC-IGNITION-SYSTEM WITH INTEGRATED IMMOBILIZER FOR HARLEY-DAVIDSON® MOTORCYCLES (patent applied for)

# NEW FEATURES:

- 5 (FIVE) YEARS LIMITED WARRANTY
- "FORMULA-ONE" ELECTRONIC COMPONENTS INSIDE
- MULTIPLIED SPARK ENERGY UNRIVALLED PERFORMANCE
- "SYNCHRO-CONTROL" -> ULTRA LOW ENG. VIBRATION
- OVERLOAD PROTECTION
- SUPPORTS 1,4 $\Omega$  IGNITION-COILS FOR DRAG-RACE
- SUPER-START-ENHANCEMENT-MODE (KICK & ELECTRIC)

#### **FEATURES:**

- professional high-definition, high-resolution computerized electronic ignition
- generates a very hot and long spark throughout the entire rpm-range with almost any coil
- integrated into a F53-aluminium nose-cone outer-cover, using late OEM trigger-rotor
- available as Dual-Fire (AMM-IMMOGNITION I) and Single-Fire (AMM-IMMOGNITION II)
- rugged construction ensures outstanding endurance
- integrated immobilizer-function using stainless-steel electronic key with over 281.500.000.000 combinations, activation through "touch"
- high definition curve-fields can be downloaded into the AMM IMMOGNITION simply by touching with a preprogrammed "curve-key"
- completely programmable rev. limiter
- fits all Evolution-, late Shovelhead- and Sportster engines from 1970...now
- adapting distributor for Panhead and Early-Shovel available



nose-cone outer-cover, actual size



#### **DESCRIPTION:**

The AMM - IMMOGNITION is a professional electronic ignition-system for Harley-Davidson motorcycles. It is designed using the latest available technology, and implements a new approach of calculating the spark-timing, resulting in an unrivalled resolution and accuracy.

The new AMM - IMMOGNITION MILLENIUM-SERIES features the "SYNCHRO-CONTROL" mode, a new development by AMM, capable of automatically optimizing engine torque through the entire rpm range. This is done in "real-time" by elaborate large-scale calculations in the ignition computer. As a side-effect of this technological breakthrough, engine vibration is reduced to an extent, formerly not considered as possible for a V2 engine.



### PRELIMINARY,,,,



Extensive test-runs have shown major improvements on the following subjects:

- engine start (hot & cold; kick & electric)
- acceleration (excellent acceleration with minimum vibrations, tested in drag-race)
- smoothness of engine-reaction in any situation
- turbine-like engine characteristics
- gas-consumption (less)
- engine-vibration (dramatically reduced through "SYNCHRO-CONTROL")
- throttle-response
- cold engine throttle-response
- overall performance

The AMM - IMMOGNITION MILLENIUM SERIES is protected against overload- and short-circuit-conditions, which will result in a shut-off state before internal components are damaged.

The AMM - IMMOGNITION is housed in a F-53 aluminium nose-cone outer-cover, that replaces the stock-cover. Connections to the OEM-sensor-plate are made inside the nose-cone. There are only 2-3 external cables, which have to be connected outside the nose-cone (+12Volt, coil-1 minus, coil-2 minus).

The AMM - IMMOGNITION features an integrated high-security immobilizer-function, that prohibits engine-starting until the appropriate electronic-key touched the nose-cone outer-cover. This feature has been added as an efficient theft-protection for the entire motorcycle.

A Harley-Davidson-engine that is equipped with the AMM - IMMOGNITION, will definitely under no circumstance start and run, until the ignition-function is activated by touching the nose-cone outer-cover with the appropriate electronic activation-key (provided, the immobilizer feature has not been deactivated by the customer).

The electonic keys are hermetically sealed in a stainless-steel package and are unsensitive against mechanical shock and moisture. The immobilizer-code features over 281.500.000.000.000 combinations.

High-definition curve-fields can be downloaded into the AMM - IMMOGNITION by touching the nose-cone outer-cover with a special curve-key. It is not necessary to plug to a computer.

Curve adjustments can be made in less than a second anywhrere and anytime, simply by "touching". This is especially useful in race-applications (adaption to specific fuel characteristics, race-track, -humidity etc.).

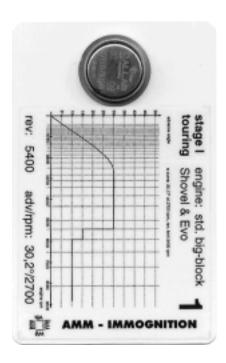
Curve-keys are available from AMM for all kinds of engines and applications. The User can program his self-designed high-definition curve-fields into curve-keys with a special IMMOGNITION-PROGRAMMING-KIT, which is sold separately.

The User-curve-keys have an internal non-volatile memory that can be reprogrammed as often as desired (refer to the IMMOGNITI-ON-PROGRAMMING-KIT data-sheet).

Related products: AMM - IMMOLATOR-KEY

AMM - CURVE-KEY PRO-KIT

AMM - IMMOGNITION-PROGRAMMER



curve-key, actual size



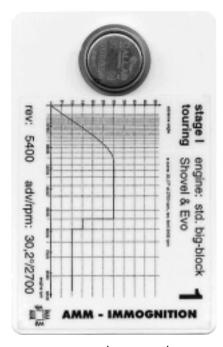


#### AMM - CURVE-KEY PRO-KIT

## SET OF 9 FACTORY-PROGRAMMED CURVE-KEYS FOR DOWNLOADING INTO AMM - IMMOGNITION I & II

#### **FEATURES:**

- 9 factory programmed curve-keys ready for downloading into AMM - IMMOGNITION I & II
- enables you to tune in any HD-engine, that is equipped with the AMM - IMMOGNITION I or II within seconds (Big-Twin & Sportster, Shovel & Evo)
- true individually balanced curve-fields
- 30,2°, 34,5° and 38,8° max. advance supported
- 5400 / 5900 / 6500 rpm rev.-limits supported
- structured division into performance-stages and -characteristics helps you to find the right curve for your application
- detailed user's manual inlauded
- especially useful for workshops



curve-key, actual size

#### **DESCRIPTION:**

The AMM - CURVE-KEY PRO-KIT is a set of 9 factory-programmed curve-keys for downloading into AMM - IMMOGNITION I & II. Each curve-key contains an individually balanced curve-field which is developed and tested by AMM, in order to deliver excellent performance and characteristics for the appropriate motorcycle.

The 9 different curve-fields are structured in such a way, that you can easily determine the curve-key, that fits your touring-, sport- or race-application.

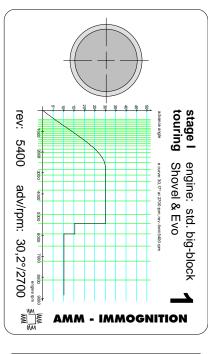
Every curve-field features excellent idling and overall-performance. Any HD-engine is supported (also engines with modified bore/stroke).

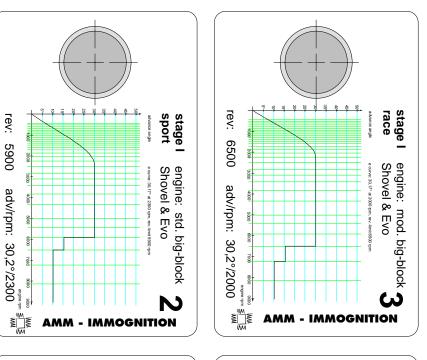
A detailed user's manual with explicit information is included.

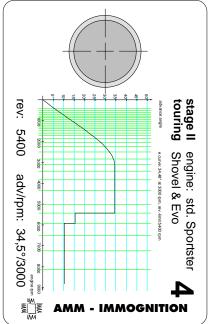
Dealers must own the AMM - CURVE-KEY PRO-KIT in order to obtain AMM's dealer authorization.

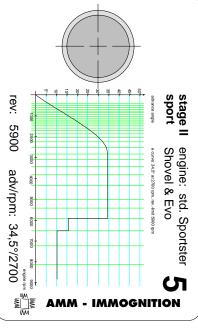
Modifications to the curve-fields, contained in this package, can be made with the AMM-IMMOGNITI-ON PROGRAMMING-KIT, which is sold separately.

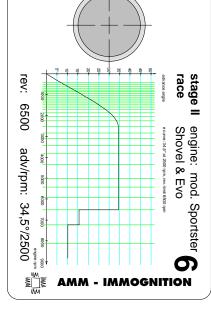


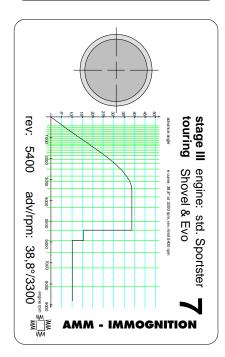


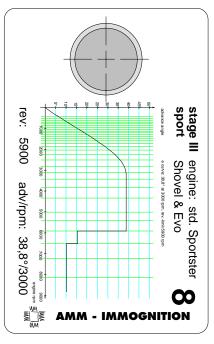


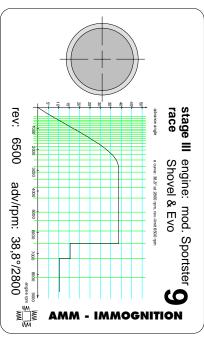














#### **AMM - IMMOLATOR-KEY**

### ACTIVATION/DEACTIVATION-KEY FOR THE INTEGRATED IMMOBILIZER-FUNCTION OF THE AMM - IMMOGNITION I&II

#### **FEATURES:**

- programs the integrated immobilizer of AMM - IMMOGNITION I&II
- double-chip-card
- immobilizer can be enabled or disabled by "touch"
- the AMM IMMOGNITION stores the immobilizersetting until it is reprogrammed
- programming and reprogramming is only possible with the appropriate activation-key (user-protection)
- curve-field programming remains possible and is independent of the immobilizer settings
- AMM user-interface ensures 100% error-free programming
- especially useful for professional race-applications



AMM - IMMOLATOR-KEY, actual size

#### **DESCRIPTION:**

The AMM - IMMOLATOR-KEY is used to enable or disable the immobilizer-function which is integrated into AMM - IMMOGNITION ignition-products. The AMM - IMMOGNITION I&II are shipped with the immobilizer activated. If the customer wants to disable the immobilizer-function (f.e. in race-applications), this can be done with the AMM - IMMOLATOR-KEY. The AMM - IMMOGNITION will permanently hold the programmed setting until it is reprogrammed. Programming of the integrated immobilizer is secure, because the appropriate activation-key is always needed for alterations of the internal settings. Curve-field programming with AMM - CURVE-KEYs remains possible and is also 100% securve, because the activation-key must be used.

The customer can also reactivate (enable) the immobilizer-function from the disabled state. In this case, the ignition function of the AMM - IMMOGNITION reamains disabled, until he uses his activation key.

We advise all our customers to leave the immobilizer-function enabled (for theft protection), if the bike is not used in professional race-applications.



FINAL



#### **AMM - IMMOGNITION-PROGRAMMING-KIT**

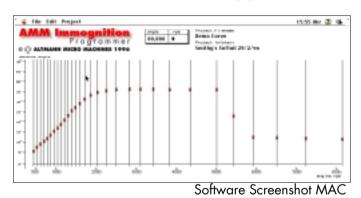
# PC-BASED PROGRAMMING-SOFTWARE & HARDWARE FOR AMM - IMMOGNITION I&II

#### **FEATURES:**

- high definition curve-fields can be developed and programmed into a curve-key by "touch"
- rugged programming hardware for workshop-use (stainless-steel top-cover)
- programming software supports MAC-OS & MS-DOS
- graphical user-interface
- virtually zero-learning-time
- programs rev. limit
- programmable curve-keys can be reprogrammed as often, as desired
- 5 custom-curve-keys in the package
- many curve-examples on the disk
- programming guide included



AMM - PROGRAMMER



#### **DESCRIPTION:**

The AMM - IMMOGNITION-PROGRAMMING-KIT enables the user to develop high-definition curve-fields for his own specific application, and program these into an immognition-curve-key. A ready-programmed curve-key can be used to load down its internal curve-field into an AMM - IMMO-GNITION I or II anywhere and anytime without the need of technical equipment, simply by "touching" (refer to the AMM - IMMOGNITION data sheets).

The user may develop 2 or 3 versions of a basic curve, program the curve-keys and take his bike for a test-ride. He may start up with the first version, and can change the actual curve of the AMM - IMMO-GNITION on the road, simply by touching.

An IMMOGNITION high-definition curve-field consists of 30 time slots, that are distributed throughout the rpm-range. Every time-slot directs to an advance angle.

The curve-keys, supplied with the AMM - IMMOGNITION-PROGRAMMING-KIT, can be reprogrammed as often, as desired.

This kit contains the curve-data of the AMM - CURVE-KEY PRO-KIT on disk.





#### **AMM - IMMOGNITION I**

### LEISTUNGSDIAGRAMM VOM 14/12/96 AUFGENOMMEN VON HARLEY-SHOP DIETER LANGER, 64850 SCHAAFHEIM

Power Diagram 14/12/96, recorded at Harley-Shop Dieter Langer in 64850 Schaafheim, Germany

