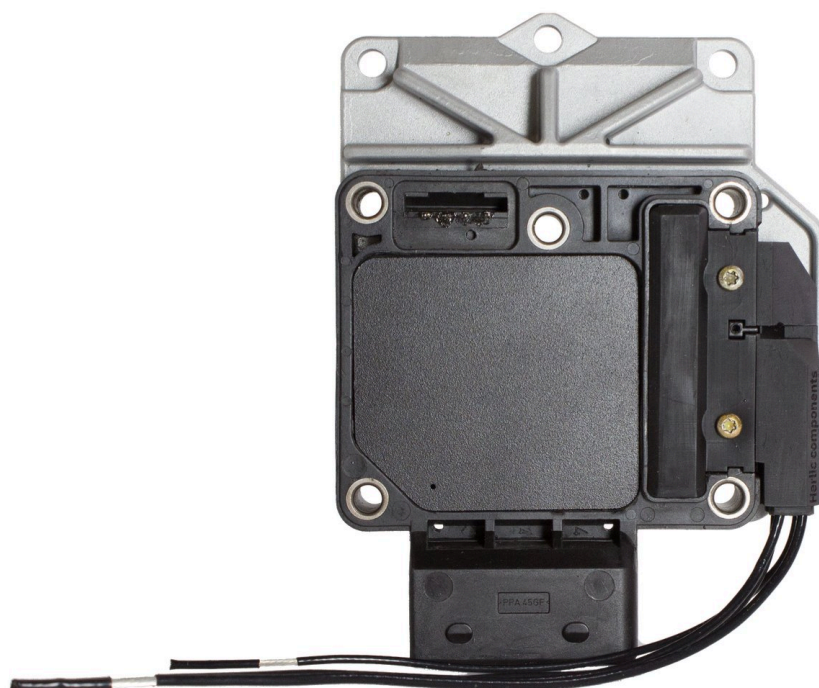


DIESEL INJECTION ELECTRONICS

Replacement control units and diagnostic equipment for Bosch VP30 & VP44 pumps

Three products that cover the same job end to end: the new control unit that returns a pump to service, the interface that diagnoses and adjusts it, and the bench system that tests it. Designed and produced in Spain.



HC-PSG5

New replacement control unit for Bosch VP30 and VP44 pumps, coded and calibrated for the reference ordered.

[PAGE 2](#)

HC-VCI

Bluetooth vehicle communication interface and Android app for PSG5 pump electronics.

[PAGE 4](#)

HC-Bench

Test and calibration system for PSG5 control units on the workshop bench.

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HC-PSG5

Replacement control unit for VP30 & VP44 diesel injection pumps

1. Description

A brand-new electronic control unit for Bosch VP30 and VP44 rotary diesel injection pumps fitted with PSG5 electronics. It replaces the original pump control unit where that unit is no longer repairable, unavailable, or economically unviable.

Unlike a repaired or remanufactured solution, the unit is built from new electronics throughout and is engineered to match the functionality of the original controller within the original pump housing. It restores the original injection timing and metering and communicates with the engine over the standard interface, returning the pump to correct operation. Every unit is supplied coded and calibrated for the pump reference ordered. Produced in Europe.

2. Features

- New electronic components throughout — no repaired or remanufactured parts
- Supplied pre-coded and calibrated for the reference ordered
- No proprietary software, licence or programming tool required to fit it
- Fits the original connector and the original pump mounting
- Idle and injection-start-angle adjustment over the standard K-Line protocol
- Recalibration and EPS 815 bench compensation as on a genuine unit
- Supplied on exchange — the replacement ships first
- Two-year warranty
- Continuous production for long-term availability

3. Installation

- Transfer the shaft sensor from the original unit
- Mount to the pump; connect the pump-side interfaces and the vehicle harness
- No coding, no programming, no software — the unit arrives ready to run
- Adjustment, recalibration and EPS 815 compensation use the equipment already in the workshop



Orientative illustration. Configuration varies by application.

Pumps	Bosch VP30 / VP44, PSG5 electronics
Families	0470004 · 0470006 · 0470504 · 0470506
References	61 available, expanding
Supply voltage	Per reference
Condition	New, supplied on exchange
Warranty	2 years

4. Supplied components

- HC-PSG5 control unit, coded for the reference ordered
- Seal kit
- Quantity control valve and advance control valve wiring interfaces

The pump shaft sensor is not supplied. It transfers from the original unit. Check its condition before starting the job — a new sensor is available separately if the original is damaged.



The unit mounts on the original pump, in the original position.

HC-PSG5 — specification and ordering

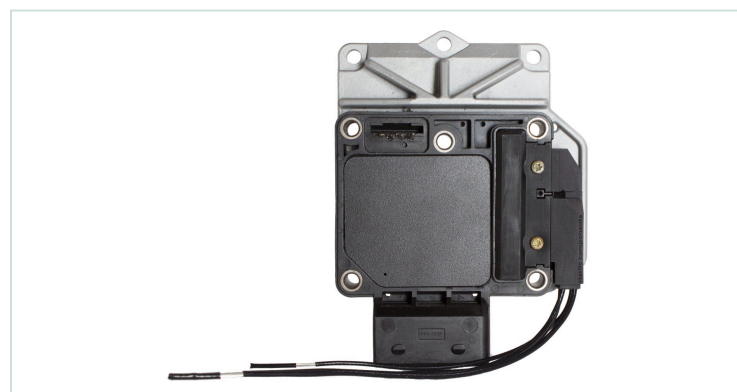
What a fitter needs to know before ordering

5. Specification

Product	HC-PSG5 pump control unit
Pumps	Bosch VP30 and VP44 with PSG5 electronics only
Pump families	0470004 · 0470006 · 0470504 · 0470506
References available	61, expanding continuously
Condition	New unit, supplied on exchange
Coding	Coded and calibrated before dispatch, per reference
Operating voltage	Per reference — built for the pump it replaces
Mounting	Original pump mounting, original connector
Diagnostics	Standard K-Line protocol
Bench work	Recalibration and EPS 815 compensation as on a genuine unit
Software required	None — no licence, no programming tool
Shaft sensor	Transfers from the original unit; new sensor available separately
Warranty	2 years
Origin	Produced in Europe

6. Warranty & support

- Two years, on units that have not been manipulated
- Recalibration or compensation by a third party on an EPS 815 bench does not affect the warranty
- Where the warranty applies the unit is replaced, not repaired
- Detailed terms provided on request



Every unit is coded and calibrated for the reference ordered before it leaves the factory.

7. Ordering

- Order against the pump's Bosch reference, stamped on the pump
- Supplied on exchange: the replacement ships first and the original unit is returned afterwards. The core is charged if it does not arrive
- Any condition of returned unit is accepted, except a completely destroyed plastic and aluminium housing
- Lead time: standard shipping from Spain to the destination country

8. How a reference is formed

HCP-0040-02

The last six digits of the Bosch number, split four and two.
 Bosch 0 470 004 002 → HCP-0040-02
 Bosch 0 470 504 012 → HCP-5040-12

The full list of available references is on page 8. Coverage is added continuously — if a reference is not listed, send us the Bosch number stamped on the pump and we will confirm availability or tell you when it is due.

Diagnose it HC-VCI, page 4
Test it HC-Bench, page 6
References Page 8

HC-VCI

In-line PSG5 diagnostics for VP30 & VP44 pumps, from an Android phone

1. Description

HC-VCI reads and drives the electronics of a Bosch VP30 or VP44 pump from an Android phone or tablet, over Bluetooth, on the bench or on the vehicle. The interface wires in-line into the pump harness on native PSG5 connectors — male one side, female the other, 40 cm of cable each side. It plugs between the existing vehicle-side and pump-side connectors. Nothing is cut, spliced or adapted, and no extra loom is needed.

Unlike a fault-code reader, it measures the crank signal, the shut-off line and the injector drive current itself, at the same time as it reads what the control unit makes of them. When the two disagree, the tool says so: the difference between “there is a crank fault” and “the sensor is fine, the control unit is not reading it”. That is the answer that decides whether a unit is worth stripping.

2. Features

- Identifies the unit — Bosch part number, pump series, cylinder count, marque
- Reads the control-unit software version, for records and repair history
- Reads and clears stored fault codes; shows live pump status beside them
- Faults are read automatically the moment the tool connects
- Live data with graphs — speed, injection timing, commanded fuel quantity and more
- Crank-signal, injector drive-current and shut-off line checks on its own inputs
- Crank-signal check works with the pump unpowered
- Cranking test: three rows, one verdict on where the chain breaks
- Reads and adjusts the stored idle calibration value, reversibly, on a dial
- Unlocks and virginizes locked Ford PSG5 control units

3. Supplied components

- The HC-VCI interface, with its PSG5 connectors and cables fitted (40 cm each side)
- A card with the link to the app
- Two spare fuses

The interface is fused against overcurrent, and the fuse is a two-minute workshop replacement. The connectors are native PSG5, so no adapter, loom or extra cable is needed for any supported pump.



The interface with the app running on a tablet. Phone or tablet, Android 7.0 or later.

Pumps	Bosch VP30 / VP44, PSG5 electronics
Coverage	110 pump part numbers · 147 identifiers
Connection	In-line, native PSG5 connectors
App	Android 7.0+, free on Google Play
Internet	Not required — works offline
Warranty	2 years

4. The app

- Free on Google Play — “HC-VCI: VP44 PSG5 Diagnostics”
- No account, no login, no subscription
- Works fully offline, in the workshop or at the roadside
- English, Spanish and German

5. What it is not

- Not an OBD-II scan tool — it reads the pump electronics only
- It does not code, program or replace a control unit
- Android only — no iOS, no PC software
- It does not judge mechanical condition

HC-VCI — specification and operations

What the tool measures, reads and adjusts

6. Specification

Model	HC-VCI
Type	Bluetooth diagnostic interface
Pumps supported	Bosch VP30 and VP44 with PSG5 electronics
Control units	PSG5 only. Not PSG16, not earlier generations
Coverage	110 pump part numbers · 147 identifiers
Connection	In-line, native PSG5 connectors, 40 cm cable each side
App	Android 7.0+, phone or tablet · Google Play, free
App listing	HC-VCI: VP44 PSG5 Diagnostics
Languages	English, Spanish, German
Internet	Not required — works offline, no account
Power	From the pump / vehicle harness
Operating range	12/24 V systems · 5.5–32 V DC · –30 to +70 °C
Wireless range	Up to 50 m open air
Dimensions	13 × 13 × 5 cm, plus 40 cm cable each side
Warranty	2 years
Lead time	One week, plus standard shipping from Spain

7. Typical use

- Deciding whether a pump is worth stripping — separating a failed sensor from a control unit that is not reading it
- No-start diagnosis on the vehicle: the cranking test reaches a verdict even with the crank sensor disconnected
- Bench verification after repair: identify the unit, read live data, clear the codes
- Moving a locked Ford PSG5 pump to a different vehicle
- Setting idle on a replaced or rebuilt unit, with the original value writeable back

8. Supported operations

Identification

- Bosch part number, pump series, cylinder count, marque
- Control-unit software version

Faults

- Read stored fault codes, decoded to plain text
- Clear stored codes, as a deliberate confirmed action
- Live pump status, graded by severity, beside the stored codes

Live measurement

- Engine speed, injection timing, commanded fuel quantity and further channels, with a graph view
- Supply voltage, measured by the interface itself
- CAN bus health — alive, quiet or in error, with the error counters behind it

Checks on the tool's own signals

- Crank-signal check — works with the pump unpowered
- Injector drive-current check — peak-and-hold, both phases
- Shut-off line test — whether the control unit reacted, and how long it took
- Cranking test — both speed signals, fuel command, injector drive
- Diagnostic-line check — K-Line status

Adjustment and immobilizer

- Idle adjustment — read the stored calibration value and write a new one, reversibly
- Read immobilizer state — locked or not, paired to a vehicle or not
- Immobilizer watchdog check
- Unlock and virginize a Ford control unit — all Ford PSG5 pumps covered

Idle calibration is manual: the tool gives the value and the dial, and does not run a calibration procedure by itself. It needs a working diagnostic line to identify a pump.

HC-Bench

Retrofit control system for VP44 pump test benches

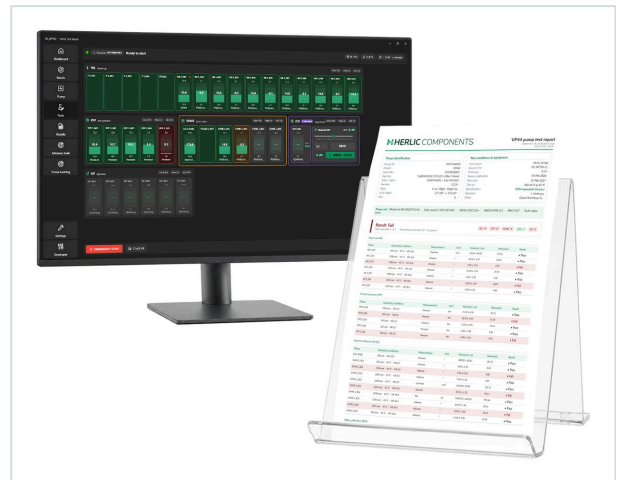
1. Description

HC-Bench is a retrofit kit for the test bench a workshop already owns. The bench, drive motor, tank and plumbing stay; Herlic Components supplies the control electronics, the sensor set and the software, and converts the machine. Conversion is performed by us or by a technician we have trained.

Once the pump is mounted and the run is started, the system identifies the control unit, drives the bench, measures, judges each point against the factory tolerance and documents the result — without further input. Test values are derived from the Bosch factory test specifications, so tolerances cannot be widened in the application to make a pump pass.

2. Features

- Pump identification over K-Line; the Bosch part number selects the test plan
- An unrecognised pump stops the run rather than guessing at a test plan
- Locked Ford control units unlocked, virginized and verified within the sequence
- Closed-loop PID speed control of the drive motor through every test phase
- Each point judged against the Bosch nominal and tolerance: per point, per phase
- Automatic idle (dPhi) calibration: measures, solves, writes and verifies
- Fault-memory erase as a final step — the pump leaves with a clean record
- Safe shutdown on any critical alarm, loss of flow or lost connection
- Multi-page A4 PDF test report per run
- Complete run history stored locally; the original certificate can be re-issued
- Workshop data never leaves the building — no cloud, no account



The test screen and the printed report. The bench itself stays as it is.

Status	In development — release date to confirm
Type	Retrofit kit for your existing bench
Pumps	Bosch VP44, PSG5 control units
Test plans	109 original Bosch factory plans
Coverage	110 part numbers
Output	Multi-page A4 PDF report per run

3. Supplied components

- Control electronics, with ten relay outputs
- Sensor set: two flowmeters, pressure sensors, temperature sensors, shaft encoder
- PC with the software installed and configured
- PCAN-USB adapter to the bench electronics
- FTDI USB adapter to the pump's diagnostic line
- The pump database and factory-derived test plans
- Installation and commissioning by us or by a technician we have trained

Not supplied: the bench, drive motor, tank and plumbing, which are the customer's own; test oil to ISO 4113; injector, tube and valve tooling per pump family.

HC-Bench — specification and test sequence

What the system controls, measures and documents

4. Specification

Type	Retrofit kit — your existing bench stays
Pumps	Bosch VP44, PSG5 control units
Coverage	110 part numbers, factory-derived test plans
Test plans	109 original Bosch factory test plans
Unit variants	PSG2/PSG5 Opel · PSG5 with pre-injection · PSG5 pre-injection, Ford
Interfaces	CAN to bench and pump · K-Line / KWP2000 diagnostics
Drive command	0–10 V analogue speed command to the bench speed controller
Shaft encoder	4096 pulses/rev by default
Relay outputs	Ten: oil pump, tank heater, tank cooler, inlet-line cooler, pump power, rotation direction, counter, pulse signal, beacon, one spare
Measured channels	Delivery and return quantity, injection advance angle, two pressure channels, four temperature channels, bench speed, alarm states
Pump supply	27 V or 13.5 V, selected manually on the power supply
Output	Multi-page A4 PDF report; full run history stored locally
PC	Windows 10/11, supplied with software installed
Languages	Spanish, English
Test oil	ISO 4113
Warranty	2 years
Status	In development — date to confirm

5. Typical use

- Converting an existing manual VP44 bench to automatic testing instead of replacing it
- Testing pumps against the factory specification and issuing a pass/fail certificate
- Unlocking and virginizing locked Ford PSG5 control units
- Automatic idle (dPhi) calibration written and verified after test
- Re-issuing the original test certificate from stored history

6. The test sequence

- **Identification** — reads the control unit over K-Line and recovers the Bosch part number, model reference, data record, both software versions, the serial number, the stored idle-timing value and the fault codes
- **Immobilizer unlock** — locked Ford units unlocked, virginized and verified; skipped automatically on pumps that do not need it
- **Bench control** — powers the pump, ramps the motor to each test speed and holds it under closed-loop PID control against measured shaft speed
- **Test execution** — per phase: reach speed, settle, command fuel quantity, injection angle and pre-injection quantity, then sample every channel at the specified rate and duration
- **Evaluation** — the mean of the samples for each point is compared against the nominal and tolerance. A phase passes only if every point passes; a test passes only if every phase passes
- **Idle calibration** — optional and fully automatic: measures, solves, writes, re-measures up to eight iterations, commits the best value
- **Fault-code erase** — clears the fault memory and records it on the report
- **Reporting** — PDF per run, re-generated from history at any time, branded with the workshop's own name and contact block

7. Safety

A run is abandoned automatically on a critical bench alarm, zero return flow above 300 rpm with the oil pump on, a control-unit status reaction, a speed or temperature target not reached in time, or loss of the CAN or K-Line connection. Teardown always stops the drive, drops the direction relays, zeroes the pump commands and spins the oil pump down.

8. The operator's part

Mount and connect the pump and select the injector, tube and valve set; set the supply voltage; bring the oil to temperature; confirm the leak check and press Start. From there the run is unattended. There is no robotic handling and no automatic tool change.

HC-PSG5 compatibility list

61 references available · Bosch applications

HCP-0040-02

The last six digits of the Bosch number, split four and two.

Bosch **0 470 004 002** → HCP-0040-02

Bosch **0 470 504 012** → HCP-5040-12

HC REFERENCE	APPLICATION PUMP	HC REFERENCE	APPLICATION PUMP	HC REFERENCE	APPLICATION PUMP
HCP-0040-02	0 470 004 002	HCP-0060-08	0 470 006 008	HCP-5040-38	0 470 504 038
HCP-0040-03	0 470 004 003	HCP-5040-03	0 470 504 003	HCP-5040-39	0 470 504 039
HCP-0040-04	0 470 004 004	HCP-5040-04	0 470 504 004	HCP-5040-42	0 470 504 042
HCP-0040-05	0 470 004 005	HCP-5040-05	0 470 504 005	HCP-5040-43	0 470 504 043
HCP-0040-06	0 470 004 006	HCP-5040-06	0 470 504 006	HCP-5040-46	0 470 504 046
HCP-0040-07	0 470 004 007	HCP-5040-07	0 470 504 007	HCP-5060-02	0 470 506 002
HCP-0040-08	0 470 004 008	HCP-5040-09	0 470 504 009	HCP-5060-06	0 470 506 006
HCP-0040-12	0 470 004 012	HCP-5040-10	0 470 504 010	HCP-5060-17	0 470 506 017
HCP-0040-14	0 470 004 014	HCP-5040-11	0 470 504 011	HCP-5060-18	0 470 506 018
HCP-0040-15	0 470 004 015	HCP-5040-12	0 470 504 012	HCP-5060-19	0 470 506 019
HCP-0040-16	0 470 004 016	HCP-5040-14	0 470 504 014	HCP-5060-23	0 470 506 023
HCP-0040-17	0 470 004 017	HCP-5040-17	0 470 504 017	HCP-5060-25	0 470 506 025
HCP-0040-18	0 470 004 018	HCP-5040-18	0 470 504 018	HCP-5060-31	0 470 506 031
HCP-0040-19	0 470 004 019	HCP-5040-22	0 470 504 022	HCP-5060-32	0 470 506 032
HCP-0060-01	0 470 006 001	HCP-5040-23	0 470 504 023	HCP-5060-39	0 470 506 039
HCP-0060-02	0 470 006 002	HCP-5040-25	0 470 504 025	HCP-5060-42	0 470 506 042
HCP-0060-03	0 470 006 003	HCP-5040-28	0 470 504 028	HCP-5060-43	0 470 506 043
HCP-0060-04	0 470 006 004	HCP-5040-29	0 470 504 029	HCP-5060-44	0 470 506 044
HCP-0060-05	0 470 006 005	HCP-5040-33	0 470 504 033	HCP-5060-45	0 470 506 045
HCP-0060-06	0 470 006 006	HCP-5040-34	0 470 504 034	HCP-5060-47	0 470 506 047
HCP-0060-07	0 470 006 007				

The list is expanding. References not shown may be available on request — quote the Bosch number stamped on the pump.

Reference not listed?

Coverage is added continuously. Send us the Bosch number stamped on the pump and we will confirm availability, or tell you when that reference is due.

Herlic Components · lucianoher@herliccomponents.com · +34 656 49 57 84

Ordering and contact

Diesel injection electronics, designed and produced in Spain

1. The range

HC-PSG5	New replacement control unit for Bosch VP30 and VP44 pumps, coded and calibrated per reference. 61 references available.
HC-VCI	Bluetooth interface and free Android app: identify, read and clear faults, live data, signal checks, idle adjustment, Ford unlock.
HC-Bench	Retrofit control system that converts an existing VP44 test bench to automatic testing against the factory plans. In development.

2. How to order

- **HC-PSG5** — order against the Bosch reference stamped on the pump. Supplied on exchange: the replacement ships first, the original is returned afterwards
- **HC-VCI** — ordered by product name; one week, plus standard shipping from Spain
- **HC-Bench** — by enquiry. Every installation is a conversion of your own bench, so it starts with a conversation about the machine you have
- Reference not listed, or unsure which unit fits? Send us the Bosch number stamped on the pump and we will confirm

3. Distributors

We supply diesel specialists, pump rebuilders and workshops across Europe. For distribution terms, or to find your nearest distributor, contact us directly or see the distributor page on the website.

4. Contact

Web	herliccomponents.com
Email	lucianoher@herliccomponents.com
Telephone	+34 656 49 57 84

Reparaciones Herliczka S.L. (Herlic Components)
Calle Riu Vinalopó 5, 03778 Beniarbeig, Alicante, Spain

5. About Herlic Components

Reparaciones Herliczka S.L. trades as Herlic Components. We design and produce diesel injection electronics in Spain: replacement control units for pumps that can no longer be repaired, and the diagnostic and test equipment that goes with them. The three products in this catalogue share one pump platform, so a unit fitted, diagnosed and tested with our equipment is handled by tools that agree with each other.

6. Warranty

- Two years on HC-PSG5, HC-VCI and HC-Bench
- Applies to units that have not been manipulated and have been operated within their stated supply and temperature range
- Detailed terms provided on request