

MIC3+CEC Ignition Controller

Retrofit for **WAUKESHA**[®] ATGL,
VGF and VHP Series Gas Engines



Ignition Controller

MIC3+CEC MOTORTECH IGNITION CONTROLLER

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Based on the MIC3+ series, MOTORTECH produces special controllers as a replacement for the WAUKESHA® CEC ignition system used on ATGL, VGF and VHP series gas engines with 6, 8 or 12 cylinders. Designed as an exchange device, the MIC3+CEC enables a quick conversion without great effort.

With its future oriented electronical concept, the MIC3+CEC convinces with improved engine starting performance, smooth running and improved combustion. The significantly higher and controllable ignition energy (MOST) compared to the WAUKESHA® devices, the accurate spark timing and diversified online diagnostics help to improve engine efficiency, spark plug life and availability of the equipment under the strictest emission regulations.

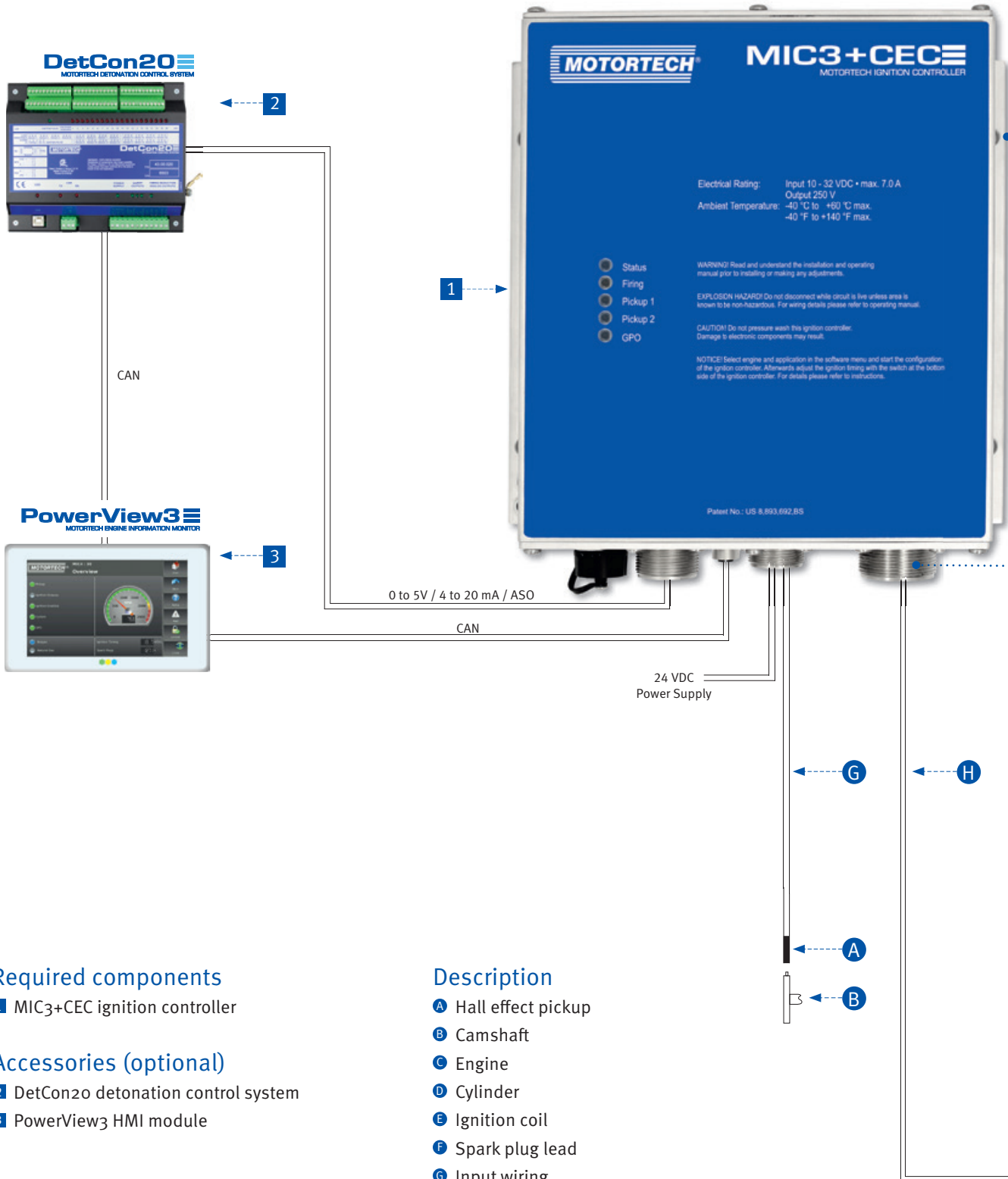
In addition, all MIC3+CEC ignition controllers include a special bracket kit to mount the ignition controller on the position of the WAUKESHA® device. Due to the same connector arrangement, existing output and input wiring can be reused. The included configuration menu offers pre-defined configuration files for most of WAUKESHA's ATGL, VGF and VHP series engines. Only engine type, ignition coil type and timing span need to be selected and the appropriate file gets uploaded to the ignition controller.



Technical benefits

- More than double the ignition energy (300 mJ)
- Boost feature with 500 mJ ignition energy for improved starting performance
- Smoother running of the engine
- Improved combustion
- Less wear to engine components
- Manual switch for ignition timing adjustment
- Solution for easy conversion
- No rewiring or mechanical adaptations necessary
- Predefined configuration data can be easily uploaded to the ignition controller
- The available devices include all components for a successful upgrade
- CAN Bus interface for connection of PowerView3 HMI Module for full ignition data visualization

System Overview



Required components

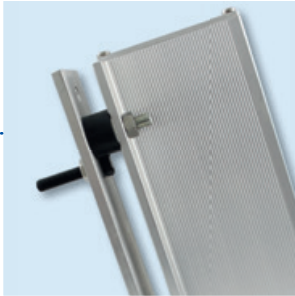
- 1 MIC3+CEC ignition controller

Accessories (optional)

- 2 DetCon20 detonation control system
- 3 PowerView3 HMI module

Description

- A Hall effect pickup
- B Camshaft
- C Engine
- D Cylinder
- E Ignition coil
- F Spark plug lead
- G Input wiring
- H Output wiring



Special bracket kit to mount the ignition controller on the position of the WAUKESHA® device.

2 The DetCon20 control unit offers full protection for gas engines from 2 to 20 cylinders. Microprocessor controlled, it will detect any detonation in the early stage and will send an analog signal (4 to 20 mA / 0 to 5 V) out to the ignition system to retard in a linear function. If detonation cannot be cured a signal will be send for load reduction and finally an engine STOP signal. CAN Bus interface included.

3 Complete visualization of the MIC3+CEC operating data, inclusive error diagnostic via optionally available PowerView3 HMI module (Human-Machine-Interface). The touchscreen guarantees an intuitive navigation through different display pages and menus. The PowerView3 is also available for data visualization of detonation control (DetCon) and temperature monitoring (TempScan).



Due to the same connector configuration, the existing input and output wiring can be re-used. Additional connectors for CAN Bus (PowerView3) and analog input (DetCon20) connection.



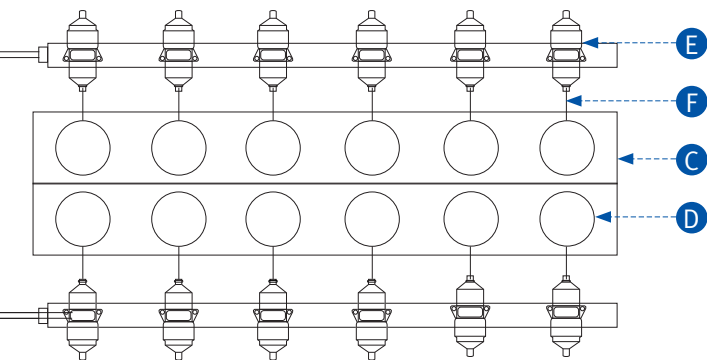
Standard unshielded epoxy ignition coils and flange ignition coils. Available in different variations to replace any existing ignition coil on WAUKESHA® gas engines.



MOTORTECH's patented PolyMot™ spark plug leads are the most reliable leads in the industry. Made from a combination of ceramic, Teflon® and silicone, they transfer nearly any rate of high energy spark from the ignition coil to the spark plug.

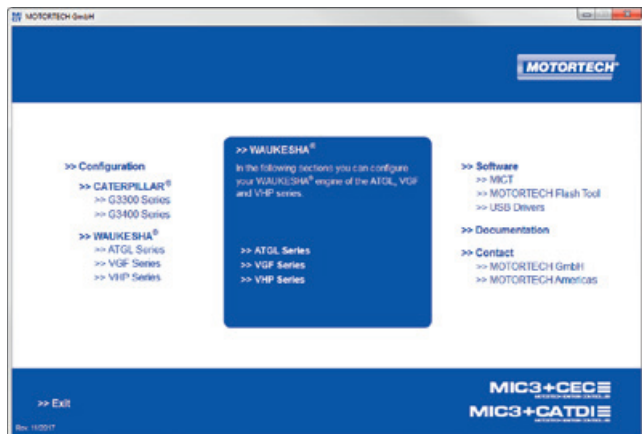


Today the industrial gas engine market requests iridium and platinum tip electrodes for long spark plug life. MOTORTECH recommends MHP spark plugs with double-iridium alloy.



Ordering Information

MICT MOTORTECH Integrated Configuration Tool – Configuration Menu



The configuration menu is specially made for MIC3+ retrofit ignition controllers and offers pre-defined configuration files for most of WAIKESHA®'s ATGL, VGF and VHP series engines and spares the individual programming of the unit. The clear structure of the menu makes it easy to find the correct file for your application.

Ordering Information – MIC3+CEC Ignition Controllers

P/N	Description	For Use with Engine Types	Equivalent to
66.00.358-8	MIC3+CEC ignition controller 8 outputs, 3 MIL connectors, Input 7 pole pin, output 10 pole pin, analog input 10 pole socket, to replace WAIKESHA® CEC Models 811/811A on ATGL (8 cylinders), VGF (6 and 8 cylinders) and VHP (6 cylinders) series gas engines	8L-AT27GL, VGF F18, VGF H24, VHP F2895, VHP F3521	CEC Models 811/811A - P/N 740608A, 740608 - P/N 69786A, 69786 - P/N 69787B, 69787 MOTORTECH MIC500 - P/N 06.00.515-6, 06.00.515-8
66.00.359-12	MIC3+CEC ignition controller 12 outputs, 3 MIL connectors, Input 7 pole pin, output 19 pole pin, analog input 10 pole socket, to replace WAIKESHA® CEC Models 1211/1211A on ATGL, VGF and VHP (12 cylinders) series gas engines	12V-AT25GL, 12V-AT27GL, VGF L36, VHP L5108, VHP L5790, VHP L7042	CEC Models 1211/1211A - P/N 740609A, 740609 - P/N 69788A, 69788 - P/N 69789B, 69789 MOTORTECH MIC500 - P/N 06.00.516

Ordering Information – Accessories (optional)

P/N	Description	Equivalent to
06.05.085	PowerView3 HMI module	
Alternative 06.05.185	PowerView3 HMI module, built into stainless steel enclosure	
Alternative 06.05.187	PowerView3 HMI module, built into steel enclosure with sight window	
06.05.086-F	PowerView3 activation code for visualization of MIC3+ data ¹⁾	
06.05.087-F	PowerView3 activation code for visualization of DetCon20 data ¹⁾	
43.00.020-06	DetCon20 detonation control kit, incl. DetCon20 control unit, detonation sensor leads (6 pcs), detonation sensors (6 pcs)	
43.00.020-08	DetCon20 detonation control kit, incl. DetCon20 control unit, detonation sensor leads (8 pcs), detonation sensors (8 pcs)	
43.00.020-12	DetCon20 detonation control kit, incl. DetCon20 control unit, detonation sensor leads (12 pcs), detonation sensors (12 pcs)	
06.02.046-160	Analog input harness, 10 pole pin, 180°, 160 in, for P/N 66.00.358-8, 66.00.359-12	

¹⁾ Activation code has to be ordered separately with each PowerView3 HMI module.

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MOTORTECH GmbH

Hogrevestr. 21-23
29223 Celle
Germany
Phone: +49 (5141) 93 99 0
Fax: +49 (5141) 93 99 99
www.motortech.de
sales@motortech.de

MOTORTECH Americas, LLC

1400 Dealers Avenue, Suite A
New Orleans, LA 70123
USA
Phone: +1 (504) 355 4212
Fax: +1 (504) 355 4217
www.motortechamericas.com
info@motortechamericas.com

MOTORTECH Shanghai Co. Ltd.

Room 1018 Enterprise Square,
No. 228 Meiyuan Road,
Zhabei District, 200070 Shanghai
China
Phone: +86 (21) 6380 7338
www.motortechshanghai.com
info@motortechshanghai.com

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