





MIC850

MOTORTECH IGNITION CONTROLLER

Electrical Rating Input: 18 - 30 VDC • 8 A
Output: 390 V

Ambient Temperature: -40 °C - +70 °C max.
-40 °F - +158 °F max.

WARNING! Read and understand the installation and operation manuals prior to installing or making any adjustments.

MOTORTECH



Class I, Div 2
Group C, D, T4

MIC850E

MOTORTECH IGNITION CONTROLLER

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Output: 390 V

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-40 °F - +158 °F max.

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Class I, Div 2,
Group C, D, T4

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CAUTION
DO NOT PRESSURE WASH
THIS SWITCH MODULE.
DAMAGE TO ELECTRONIC
COMPONENTS MAY RESULT.
DO NOT DISCONNECT
WHILE CIRCUIT IS LIVE.



Input	Pickup
① A/B	① PU 1
② A/B	② PU 1 Com
③ Start/Stop	③ Shield
④ Start/Stop	④ PU PWR (+24 VDC)
⑤ NC	⑤ PU 2
⑥ 4-20 mA (+)	⑥ PU 2 Com
⑦ 4-20 mA GND	⑦ Shield
⑧ 4-20 mA PWR (+24 VDC)	⑧ PU 3
⑨ NC	⑨ PU 3 Com
⑩ 0-5 V (+)	⑩ Shield
⑪ 0-5 V GND	POWER
⑫ 0-5 V PWR (+5 VDC)	① 24 VDC (+)
Output	②
① Go/NoGo High	③ 24 VDC (-)
② Go/NoGo Low	CAN
③ GPO 1 High	① CAN High
④ GPO 1 Low	② CAN GND
⑤ GPO 2 High	③ CAN Low
⑥ GPO 2 Low	④ Shield
⑦ GPO 3 High	ASO
⑧ GPO 3 Low	① ASO 1 High
FUSE	② ASO GND
250 VAC, 8 A	③ ASO 2 High
slow	

WARNING - EXPLOSION HAZARD - Do not disconnect while circuit is live unless area is known to be non-hazardous. For wiring details please refer to operating manual.

Q.C.
A.M.

Item	Part No.	Qty	Remarks
1	852-24	1	ARRANGEMENT NO
2	01014071	1	CPU BOARD
3	14071A	1	OUTPUT BOARD A
4	14071B	1	OUTPUT BOARD B
5	ASD	1	ASSEMBLY DRAWING
6

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USB

JTAG

Potentiometer A
Potentiometer B

MIC850E
MOTORTECH KARTON CONTROLLER

P/N
66.00.851-24
Arrangement No
852-24 CA00-000-AA-B
S/N
01014071
S/N CPU Board
14071
S/N Output Board A
14071A
S/N Output Board B
14071B

Power
Status
Firing
PU A
PU B
PU C
GPO 1
GPO 2
GPO 3
Warning
Error

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Monitor 10:1
A
B

Display Port

PB 1

PB 2

ASD

Input

Pickup

SD Card

Fuse





WE UPGRADE GAS ENGINES



MIC850 IGNITION CONTROLLER



MIC850
MOTORTECH IGNITION CONTROLLER

Electrical Rating Input: 18 - 30 VDC • 8 A
Output: 390 V
Ambient Temperature: -20 °C - +60 °C max.
-4 °F - +140 °F max.

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Class I, Div 2,
Group C, D, T4

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MIC850
MOTORTECH IGNITION CONTROLLER

IGNITION CONTROLLER



SYSTEM FEATURES

MIC850E MOTORTECH IGNITION CONTROLLER

Ignition Controller – MIC850

High ignition energy, 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. The controller is fully customer configurable via PC. Further fine tuning can be made by using the built in keyboard.

Firmware updates can easily be made via implementing a SD-Card. An optional built in graphical display offers the customer an access to approx. 20 screens with online data. This includes the access to specific information as the cylinder individual high voltage (KV) reading and the primary and secondary misfire detection.



Technical data and features

- 24 output channels
- 300V primary voltage
- 180mJ of energy
- 0.1° crankshaft accuracy
- Triggered by 1, 2 or 3 pickups (configurable)
- Will fire accurately as low as 20 RPM (slow start application)
- Multiple timing control vs.
 - potentiometer
 - Speed curve
 - 4-20mA analog input
 - 0-5V analog input
- Multiple energy control vs.
 - Manual setting
 - Spark plug run time
 - Automatic control of spark duration (ASC)
- 3 Multi purpose Outputs (GPO)
- 2 Auxiliary Synchronization Outputs (ASO) which can support the DetCon20 detonation control system and fuel injection pump controllers
- Overspeed shutdown function
- Large built in LC-Display with keyboard (optional) in selectable languages
- Access controlled

Diagnostic

- Run time data
- Ignition timing and mapping
- Alarm and error messages
- Data logging
- Pickup voltage
- Input supply voltage
- Timers
- Circuit board temperatures
- Primary and secondary misfiring detection
- Cylinder individual high voltage reading (KV)
- etc.

Interfaces

- CAN Bus interface (CANOpen protocol) supports the PowerView2 which is a 12,1" HMI touch panel PC
- USB port
- SD-Card slot for firmware updates

Hardware

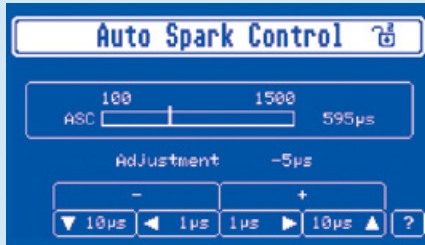
- Ignition controller can be equipped with one (12 output) or two (24 output) coil driver boards
- Standard military style connectors
 - 14 pole (socket) for 12 outputs
 - 35 pole (socket) for 24 outputs
- Optional: graphical display and keyboard built into front cover
- No separate wiring required!

MICT – MOTORTECH Ignition Configuration Tool

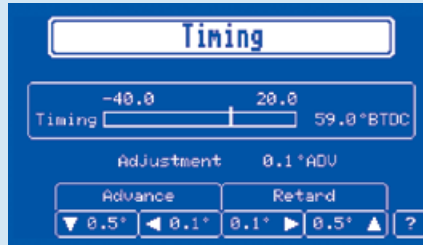
- Language selectable
- Windows PC based
- Graphical user interface
- Easy engine configuration by library based preprogrammed information
- programmed parameters are evaluated during input
- 24 configurable alarms
- Programmed timing and energy curves can be monitored
- Print function of a given moment in the operation can be used for external problem analysis via E-Mail or any other data communication

DISPLAY & MICT FEATURES

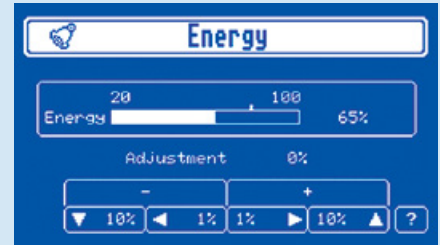
MIC850 HMI Module - Smart access to the new Series of MOTORTECH IGNITION DEVICES!



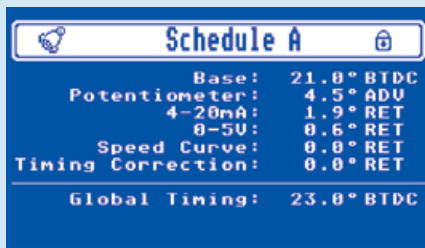
Display and adjustment options of the requested spark plug firing duration directly at the HMI-module.



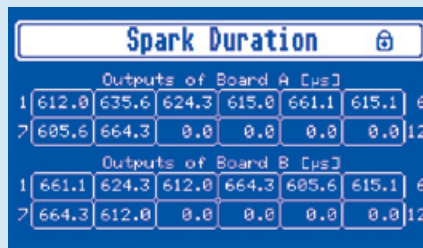
The MIC850 HMI module allows justification of various ignition parameters such as ignition timing and energy. Functions as the selftest for error diagnostics via HMI module can also be executed.



8 control keys guarantee simple navigation through different display pages and menus. All in all the MIC850 HMI module is also able to provide error diagnostics on-site without requiring a mobile PC!



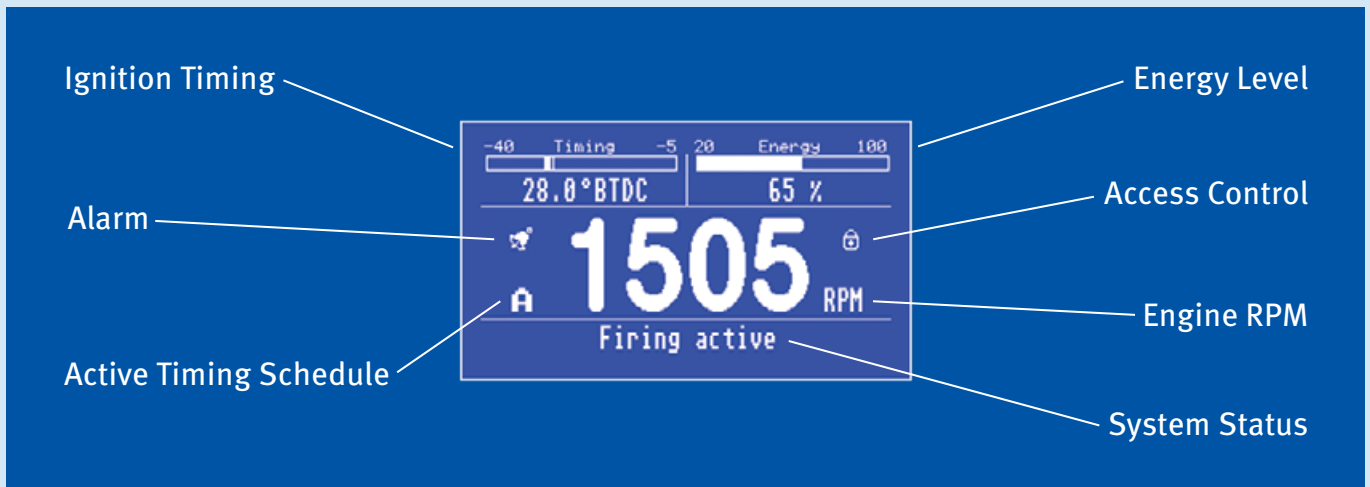
Overview of the ignition timing adjustment of configuration A. Here you can directly see whether ignition timing adjustment takes place via an analog input or via speed curve. The current ignition timing will be displayed under "Global Timing".



The spark duration of each individual spark plug will be displayed.

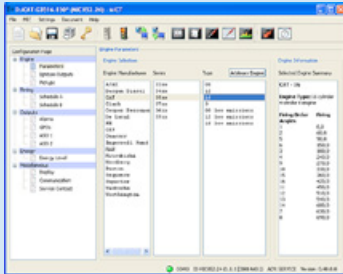


All alarm events are listed with time-stamp and description. Pending alarms are indicated by a bell icon on the main screen and can be confirmed via the built-in keyboard.



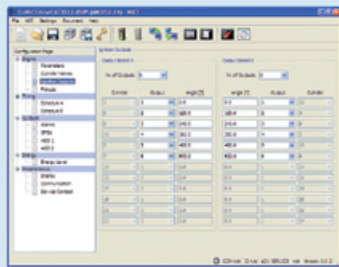
MICT FEATURES

Sample Screens – Configuration



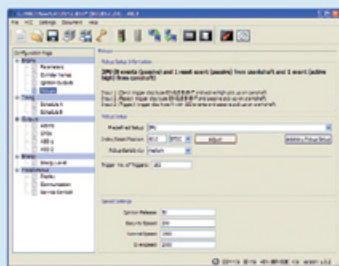
Engine Parameter

The MICT refreshable engine library stores the engine data such as various manufacturers, series and types. It facilitates the system configuration and helps to avoid mistakes. Should you not find a certain engine in the list or the stated parameters do not correspond with your expectation, configuration can be set up as you like.



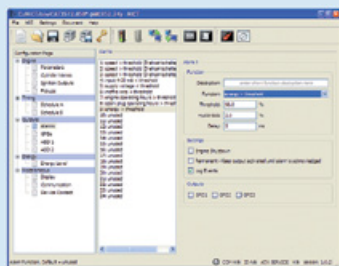
Ignition Outputs

Ignition order and output allocation can be edited in the output description.



Pickups

The MIC850 renders support for systems with 1-3 active or passive pickups. Pickup configuration can either be set up by manual input or via selection of preprogrammed data sets.



Alarms

With the 24 programmable alarm functions of the MICT the MIC850 can easily be adjusted to the requested application. Each alarm can be named individually and freely be allocated to one of the three General Purpose Outputs (GPO). Furthermore ignition shut off can be a follow-up reaction to an alarm.

A variety of functions with definable thresholds may be responsible for releasing an alarm: misfiring rate, level of power supply, temperature, spark plug operating hours and many other factors or it is a simple reaction to an event, e.g. incidence of warning.



Overview

In the overview schedule the most important current runtime data such as rpm, ignition timing or system status can be registered at a glance.

MIC850 – Standard Ignition Controller

P/N	max. Outputs	Connector	Display	Pickup Voltage
66.00.855-12	12	14 socket		24 V
66.00.855-12-D	12	14 socket	x	24 V
66.00.855-24	24	35 socket		24 V
66.00.855-24-D	24	35 socket	x	24 V

MIC850 – Special Ignition Controller – to replace WOODWARD® IC900 Series

P/N	max. Outputs	Connector	Display	Pickup Voltage
66.00.851-24	24	14 / 17 socket		24 V
66.00.851-24-D	24	14 / 17 socket	x	24 V

All Controllers are supplied with:

- MICT Programming Software CD
- USB Interlink Cable
- Vibration Mounts and Ground Strap

MIC850 – Output Harness for shielded and non shielded applications

P/N	Harness for	Connector	Degrees	Length
95.40.414-15	66.00.855-12(-D) / 66.00.851-24(-D)	14 pin	90°	15 ft.
95.40.414-25	66.00.855-12(-D) / 66.00.851-24(-D)	14 pin	90°	25 ft.
95.40.414-50	66.00.855-12(-D) / 66.00.851-24(-D)	14 pin	90°	50 ft.
95.40.417-15	66.00.851-24(-D)	17 pin	90°	15 ft.
95.40.417-25	66.00.851-24(-D)	17 pin	90°	25 ft.
95.40.417-50	66.00.851-24(-D)	17 pin	90°	50 ft.
95.40.435-15	66.00.855-24(-D)	35 pin	90°	15 ft.
95.40.435-25	66.00.855-24(-D)	35 pin	90°	25 ft.
95.40.435-50	66.00.855-24(-D)	35 pin	90°	50 ft.

NOTE: Customer has to supply shielded flex. Conduit

Junction Box

P/N	Description
06.05.067	Junction Box



When Things get hot our Service Team is at your Site quickly.



Regardless of which part of the globe we need to travel to. We know that the stakes are high, and therefore we outperform the others. That is because we want everything to run smoothly at your site, everywhere and at any time.



This is entirely in keeping up with our motto: Let us drop everything and work on your problem!



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