altronic

ALTRONIC III

Ignition System for Industrial Engines

- **Up to 16 outputs per unit**
- **Proven reliability and high temperature capability**
- **Ease of maintenance with removable back cover**
- **High output option**
- **Long spark duration coil option**
- **Electronic, variable timing options**
- **CSA-certified for Class I, Division 2, Group D hazardous areas**

Altronic III is a self-powered, low-tension, capacitor discharge ignition system for 3- to 16-cylinder, 2- or 4-cycle engines. Powered from a 12-pole permanent magnet alternator, Altronic III provides superior performance throughout the engine's operating range. Its basic design features—permanent magnet alternator; easily serviced, removable back cover containing all electronics; and simple, reliable electronic circuitry—have made Altronic III the standard of the industry on medium-to-large industrial gas engines.

Altronic III's mechanical design matches the long life inherent in the electronic circuitry. Sealed ball bearings used throughout are large and underloaded. The alternator has a smooth rotating cycle—a characteristic which contributes to prolonged bearing and gear life. Synthetic elastomer couplings ensure minimal wear while dampening engine drivetrain vibration.

Options for the Altronic III ignition system include three output levels and standard or long spark duration coils to satisfy the needs of any application. Altronic III offers complete electronic control of ignition timing over a range of 10 degrees, 2-cycle or 20 degrees, 4-cycle. A variety of shielded ignition components are available for Class I, Division 2, Group D hazardous areas.

HOERBIGER

Altronic, LLC – A Member of the Hoerbiger Group

CERTIFIED
CLASS I, DIV 2
GROUP D

Factory Mutual System
APPROVED

Superior Performance

Altronic III provides strong performance over the entire engine operating range. A low starting speed capability—typically 30 RPM, 2-cycle or 60 RPM, 4-cycle—is made possible by the 12-pole permanent magnet alternator. Delivered spark duration at typical engine KV demand levels is a critical factor for smooth, consistent engine performance. Altronic III's 501061 standard coil gives exvcellent performance, and the 591010 long-duration coil provides the extended duration required for todays lean mixture or non-standard fuel applications.

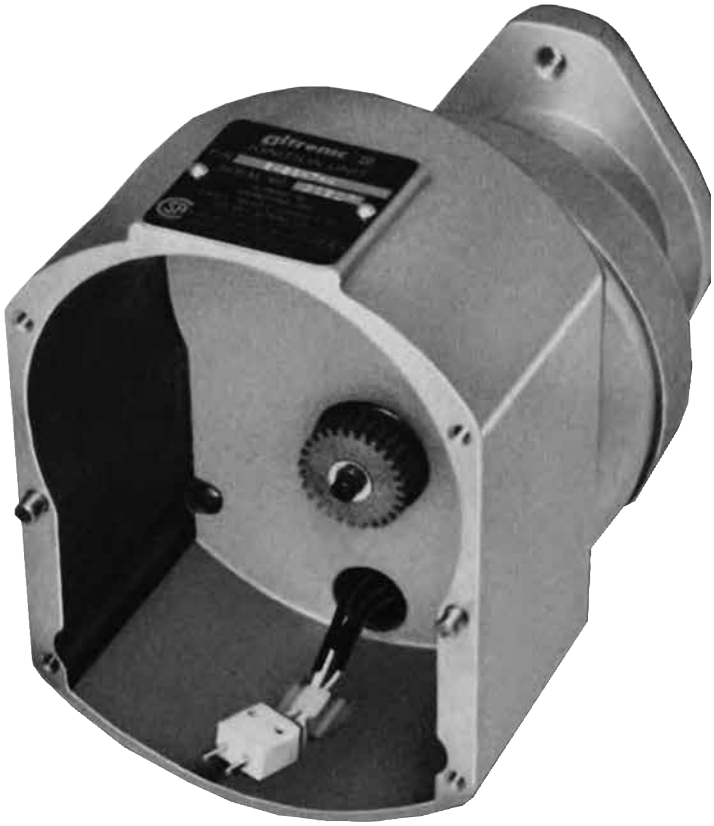
STANDARD OUTPUT			HIGH OUTPUT	
IGNITION COIL	MAX. KV	SPARK DURATION	MAX. KV	SPARK DURATION
501061	34KV	250 usec @ 10KV	40KV	360 usec @ 10KV 200 usec @ 20KV
591010	34KV	450 usec @ 10KV	40KV	550 usec @ 10KV 360 usec @ 20KV

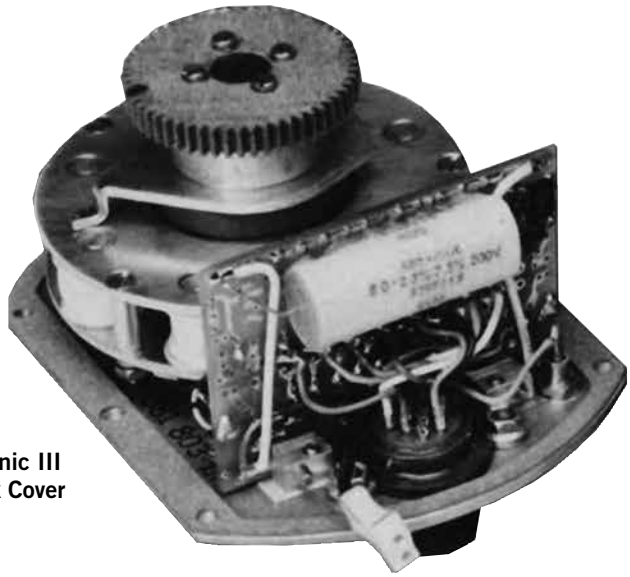
UNSHIELDED COILS
501061 – Standard
591010 – Long Duration

Low Maintenance Design and Ease of Service

Altronic III has been designed to be as maintenance free as possible. Tens of thousands of Altronic III units in successful field operations since 1968 have resulted in a design evolution to the present field proven form. All bearings are sealed ball bearings. The internal gears are large and underloaded. When service is required, Altronic III is designed to make it easy. All electronic components are mounted on the back cover assembly which is easily removed from the alternator section of the unit.

Altronic III Alternator Section



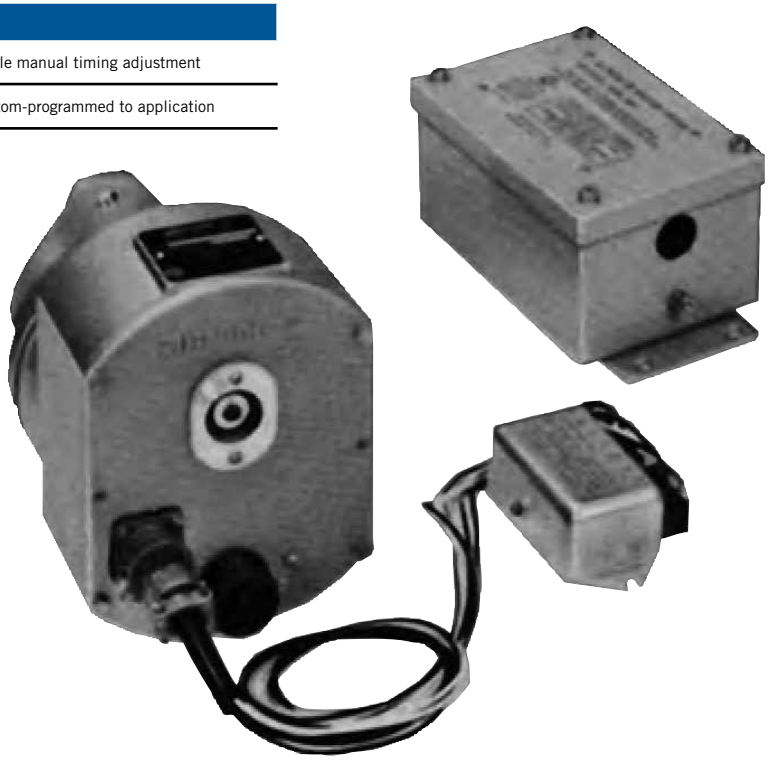


Altronic III Back Cover

Electronic Timing Capability

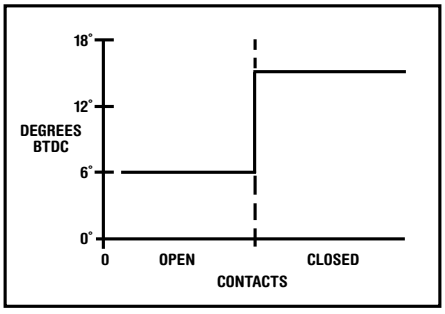
Altronic III is available with a complete line of electronic timing capability to optimize engine performance, fuel economy and engine exhaust emissions. The basic Altronic III unit has an added connector to allow the timing signals to be processed by an external control unit. The internal component parts of the Altronic III unit remain unchanged; the same service parts apply as with standard, fixed timing units.

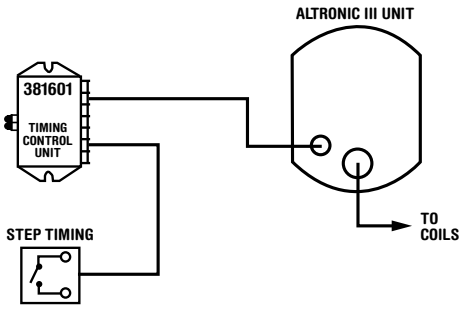
TIMING UNIT	APPLICATION
381601	Dual timing settings or simple manual timing adjustment
381610	Timing vs. RPM – curve custom-programmed to application



381601
Dual Timing Setting

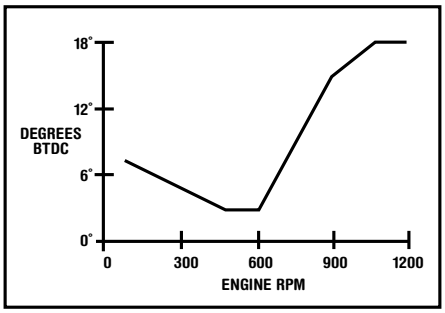
The 381601 timing unit is designed for dual-gas or dual-load applications requiring two different timing settings. The adjustment screw is used to set the differential up to a maximum of 10° (2 cycle) or 20° (4 cycle). The 381601 series can also be used for simple manual adjustment of a ignition timing.

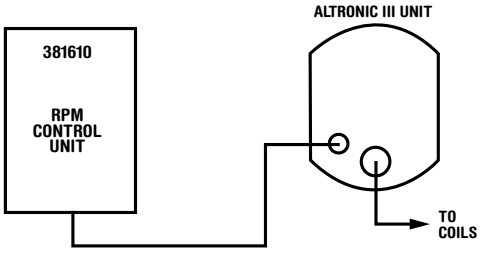




381610
Timing vs RPM

The 381610 timing unit can be programmed with virtually any shaped curve versus RPM within a range of 10° (2 cycle) or 20° (4 cycle). Ignition timing is automatically and accurately varied as a function of engine RPM for improved fuel economy and/or reducing engine detonation. Power is totally from the Altronic III unit, no other power or signal source is required. The user must supply the desired timing curve versus RPM.

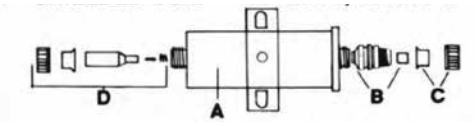




Shielded Components

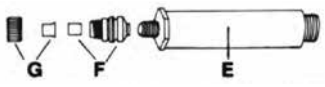
Shown below are the various shielded coil assembly and lead options. Altronic primary and spark plug cables are fabricated from Teflon® tubing covered with stainless steel braid. All components are CSA certified/FMS approved for Class I, Division 2, Group D hazardous locations.

SHIELDED COIL
501061*S, 591010-S



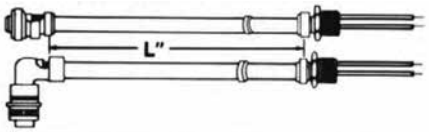
COIL NO.	DESCRIPTION	INCLUDES
501061-S 591010-S	Shielded Coil - Standard Shielded Coil - Long Duration	A
501061-S-2 591010-S-2	Coil w/Primary & Sec. Fittings	A + B + C + D
501061-S-5 591010-S-5	Coil w/Secondary Fittings	A + D

INTEGRAL COIL
591007, 591011A, 591011B



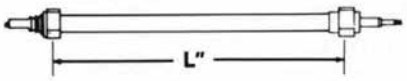
COIL NO.	DESCRIPTION	INCLUDES
591007 591011A 591011B	Coil 1"-20 x 5.6" long Coil 13/16"-20 x 6.1" long Coil 13/16"-20 x 10.8" long	E
591007-2 591011A-2 591011B-2	Coil with Primary Fittings	E + F + G

SHIELDED PRIMARY CABLE



PART NO.	CONNECTOR TYPE	LENGTH L"
593022-L"	Straight	6", 9", 12", 15", 18", 24", 30", 36", 42", 48", 54", 60", 72"
593027-L"	Right Angle	

SHIELDED SPARK PLUG LEAD



PART NO.	SPARK PLUG-WELL DEPTH	LENGTH L"
593020-L"	3/4" - 20 1"	10", 13" 16", 18"
593030-L"	3/4" - 20 2"	

Applications

AJAX*
BUDA
CATERPILLAR
CHICAGO PNEUMATIC
CLARK
CLIMAX
COOPER BESSEMER
CUMMINS*
DETROIT DIESEL*
DEUTZ*
DAIHATSU*
DORMAN*
FAIRBANKS MORSE
GANZ MAVAG*
INGERSOLL RAND
JENBACHER*
KOSAN FRICHS*
M.A.N.-BRONS*
M.E.P.
MWM*
NIIGATA*
ROILINE
SACM*
SUPERIOR*
WAUKESHA*
WORTHINGTON
YANMAR*

*Used on OEM basis by this engine manufacturer.

Altronic Shielded Coils

Shielded coils cover all application requirements with external types (standard and long-duration) and integral coils mounting directly to either 1"-20 or 13/16"-20 thread spark plugs.

591012 FLANGE-MOUNT COIL
Long-duration

501061-S SHIELDED COIL
Standard

591010-S SHIELDED COIL
Long-duration

591007 INTEGRAL COIL
1"-20 thread, 5.6" length

591011 A INTEGRAL COIL (not shown)
13/16"-20 thread, 6.1" length

591011 B INTEGRAL COIL
13/16"-20 thread, 10.8" length

altronic
HOERBIGER Engine Division
712 Trumbull Avenue / Girard, Ohio 44420
(330) 545-9768 / Fax: (330) 545-3231
www.altronic-llc.com Email: sales@altronic-llc.com