

NO. 33C

DATE: March 1, 2002

[x] APPLICATION

[x] SERVICE

SUBJECT: ALTRONIC I SYSTEM UPDATE AND "HOT SPARK" CONVERSION KITS

- * Higher Output
- * Longer Spark Duration - 1 msec
- * Improved Starting
- * Engine Runs Smoother
- * Fires Fouled Spark Plugs
- * Applicable to All Horizontal 1, 2 and 3 Cylinder Engines (unshielded system)

The Altronic I ignition system for 1, 2 and 3-cylinder horizontal engines has been updated to provide a hotter spark output. These older slow-speed engines have low BMEP and imperfect mixture of the fuel/air charge. The longer duration of the new Altronic I "Hot Spark" system provides easier starting, more consistent combustion and improved engine performance for these horizontal engines, both 2 and 4-cycle.

Higher output (180 V.) electronic boxes combined with a closed-core, long duration coil (part no. 591050) provide high output voltage and spark duration up to 1 millisecond (1,000 microseconds), 3 to 4 times longer than the standard system. The chart below details the revised electronic box specifications.

Electronic boxes 181001-X (1-output) and 181002-X (2-output) have 180-volt output, matching that in the 181006-X box used for 3-cylinder Ajax applications. Previous models 181001 and 181002 are superseded by the corresponding "-X" versions. NOTE: The 591050 coil must be used only with 181001-X, 181002-X or 181006-X electronic boxes (180 V. output).

DESCRIPTION	CURRENT PARTS		FORMER PARTS	
	PART NO.	OUTPUT	PART NO.	OUTPUT
1-OUTPUT ELECTRONIC BOX	181001-X	180V.	101074 181001	120V. 150V.
2-OUTPUT ELECTRONIC BOX	181002-X	180V.	101077 181002	120V. 150V.
3-OUTPUT ELECTRONIC BOX	181006*	150V.	181003	120V.
3-OUTPUT ELECTRONIC BOX	181006-X	180V.	181003-X	150V.

- * Used on Altronic I-6 applications for 4 and 6-cylinder, 4-cycle engines. The "Hot Spark" version does NOT apply to these applications - see the Altronic I Application List, form AI AL.

SEE BACK SIDE FOR "HOT SPARK" ENGINE APPLICATION INFORMATION.

ENGINE APPLICATION LIST - "HOT SPARK" CONVERSION

ENGINE MFR.	ENGINE TYPE	REQUIRED CONVERSION ITEMS		NOTES
		QTY. 1 ELECTRONIC BOX	QTY. 190050-1* COIL KIT	
AJAX 1 coil/cyl.	1-cyl., 2-cycle	181001-X	1	a
	2-cyl., 2-cycle	181002-X	2	a
AJAX 2 coils/cyl.	1-cyl., 2-cycle	181001-X	2	a,b
	2-cyl., 2-cycle	181002-X	4	a,b
	3-cyl., 2-cycle	181006-X	6	a,b
ARROW	1-cyl., 4-cycle	181001-X	1	a
	2-cyl., 4-cycle	181001-X	2	b
	2-cyl., 2-cycle	181002-X	2	a
BELL	1-cyl., 4-cycle	181001-X	1	
COOPER BESSEMER	1-cyl., 2-cycle	181001-X	1	
	2-cyl., 2-cycle	181002-X	2	
CLARK	1-cyl., 2-cycle	181001-X	1	
	2-cyl., 2-cycle	181002-X	2	
CONTINENTAL EMSCO	1-cyl., 4-cycle	181001-X	1	
	2-cyl., 4-cycle	181001-X	2	b
FAIRBANKS MORSE	1-cyl., 4-cycle	181001-X	1	
IR REPAIR & SERV.	1-cyl., 2-cycle	181001-X	1	
KUBOTA	1-cyl., 4-cycle	181001-X	1	
LORAIN	1-cyl., 2-cycle	181001-X	1	
LUFKIN	2-cyl., 2-cycle	181002-X	2	
OILWELL (WITTE)	1-cyl., 4-cycle	181001-X	1	
	2-cyl., 4-cycle	181001-X	2	b

* 190050-1 Kit consists of (1) 591050 coil, (1) 593056-15 spark plug lead, (1) 593071-20 coil primary lead, and (1) 510739 hardware package L.

NOTES:

- a. If replacing a 181003-X electronic box (one 3-pin and one 5-pin connector), a new electronic box 181006-X is required instead of the model listed above.
- b. The 591050 coils MUST be wired in parallel on all installations with two (2) coils per cylinder and on 2-cylinder, 4-cycle engines. Lead 593071-20 is provided in kit 190050-1 for this purpose.

Complete "Hot Spark" Field Installation Kits are available for the above applications by adding "L" to the end of the standard kit part number. Example: Kit G1-X-1 becomes G1-X-1L for the "Hot Spark" version. See Application List form AI AL for kit part numbers.