

**WARNING: DEVIATION FROM THESE INSTALLATION INSTRUCTIONS MAY LEAD TO IMPROPER ENGINE OPERATION WHICH COULD CAUSE PERSONAL INJURY TO OPERATORS OR OTHER NEARBY PERSONNEL.**

### **1.0 DESCRIPTION**

- 1.1 The Altronic coils covered by this Installation Instruction are part numbers 591 007, 591 008, 591 011A, 591 011B.
- 1.2 Integral coils mount directly to specially threaded spark plugs or adaptors. For proper operation and to realize the life designed into these products, care must be taken to observe proper installation techniques. The internal spark plug seals are easily damaged by the use of excessive torque; this in turn can lead to contamination and/or heat damage to the integral coil from leaking combustion products.

### **2.0 SPARK PLUG INSTALLATION**

- 2.1 Do not touch the ceramic insulator of the spark plug with your hands and keep away from all sources of dirt, moisture, oils, thread lubricant, etc. If the insulator has become soiled, wipe clean with a clean, dry paper towel.
- 2.2 Observe the spark plug manufacturer's recommendations for the installation of spark plugs. To achieve optimum service life for spark plugs and coils, an indicating torque wrench **MUST** be used. Follow the torque recommendations given by the spark plug manufacturer; if these are not available, the torque values listed below may be used as a guide:

7/8"-18 thread size:	50-55 ft.-lbs.
18mm thread size:	35-40 ft.-lbs.
14mm thread size:	25-30 ft.-lbs.
- 2.3 Always use a **NEW** gasket when installing a spark plug. If a thread lubricant is used, use only enough to achieve a light film on the threads and reduce the above torque values by 15-20%.
- 2.4 When installing extended length spark plugs, avoid the application of side loading. This can also damage the internal seals of the spark plug.

### **3.0 INTEGRAL COIL INSTALLATION**

- 3.1 Install the coils **AFTER** the spark plugs have been correctly installed with an indicating torque wrench. **NEVER** torque the spark plug and coil into the engine together.
- 3.2 Screw the coil onto the installed spark plug until it is fully seated. Tighten the coil firmly by hand (do not exceed 5 ft.-lbs. torque). **DO NOT** use thread lubricant between the coil and spark plug.
- 3.3 The metal case of the integral coil must be grounded. **DO NOT** energize the coil unless the case is grounded.

② INSTALL COIL  
**HAND TIGHT**  
PER SECTION 3.0.

COIL:  
591 011A  
591 011B

COIL:  
591 007  
591 008

① INSTALL SPARK  
PLUG USING  
**TORQUE WRENCH**  
PER SECTION 2.0.

