Model 700™ ETRONX™ Technology Overview

The Model 700 ElronX rifle represents the latest development in firearms and ammunition technologies. Outwardly, the Model 700 ElronX looks and feels like a standard Model 700. In fact, the rifle shares many of the same components with the Model 700. Internally, however, the Model 700 ElronX utilizes a new patented technology to fire electric primed Remington® ElronX ammunition. Where a standard Model 700 and all conventional firearms utilize the impact of a firing pin on a percussion primer to ignite the cartridge's powder, the action's ignition system of the Model 700 ElronX uses an electrical pulse to accomplish the same action with electric primed ElronX ammunition.

The electronics that generate the electrical firing pulse are also used to control the operation of the firearm. The firearm's electronics:

- Monitor the position of the safety mechanism and key switch.
- Control the firing circuit so that a fire pulse is generated only if certain predetermined conditions are met.
- Check for the presence of a round of ammunition in the rifle's chamber when the firearm is in the ready to fire state (round present sensing).
- Self-monitor the state and condition of the electronics.
- Monitor the battery's voltage.
- Communicate the operating condition of the firearm to the shooter through the **LED** (Light Emitting Diode) mounted in the top of the stock just behind the receiver tang.

Depending upon the conditions detected by the firearm's electronics, the **LED** may be (i) **OFF** (not illuminated), (ii) turned **ON** solid or (iii) flashing a status code.

To conserve energy, the Model 700 ElronX was designed to put itself into a low power consumption mode after certain periods of inactivity. To reactivate the firearm after it has gone into a low power consumption mode, it is necessary to cycle the safety mechanism from the **S-SAFE** to the **F-FIRE** position.

As with all firearms, it is important that the ammunition used exactly matches the caliber or gauge markings on your firearm. With the introduction of electric primed ammunition, it is also important that the ammunition's primer is compatible with the firearm in which it is being used. Electric primed Remington ElronX ammunition is physically identical to conventional ammunition with the exception of the primer. See Picture 2. The ElronX electric primer is visibly distinct and different from a conventional primer by virtue of a circular contact in the center of the primer. The Model 700 ElronX is designed to function with the electric primed ElronX ammunition only.

A troubleshooting guide for the Model 700 ElronX is located beginning on page 20 of this instruction book. The troubleshooting guide, in conjunction with this "Technology Overview," should answer most questions you may have about your rifle and its operations.

U.S. Patents 5,755,056; 5,779,433; 5,806,249; 5,987,798 and other Patents Pending.

The Operating Sequence

The operating sequence of the Model 700 ElronX is as follows:

- Enable the firearm by turning the key switch until it is in line with the barrel. The key slot will be pointing at the **ON** symbol **(I)** on the key switch.
- When the safety mechanism is moved to the **F-FIRE** position without a cartridge chambered, the **LED** (Light Emitting Diode) will flash a status code if there is anything (e.g. low battery), or will remain **OFF** until a cartridge is loaded and sensed present in the closed and locked chamber.
- When a cartridge is loaded and sensed present by the firearm's electronics in the closed and locked chamber and the safety mechanism is in the **F-FIRE** position, the **LED** turns **ON** solid and the firearm is ready to fire.
- When the trigger is pulled, the chambered round is fired and the **LED** is turned **OFF.**
- When the fired cartridge is ejected and another cartridge is chambered and sensed present by the firearm's electronics (with the safety mechanism in the **F-FIRE** position), the **LED** turns **ON** solid. If the cartridge is removed from the chamber, the firearm's electronics sense the round is no longer present and turns the **LED OFF.**
- When the safety mechanism is moved to the **F-FIRE** position with a cartridge chambered, it takes approximately 1/2 second for the **LED** to turn **ON** solid, indicating the rifle is ready to fire.
- After a cartridge is sensed present and the safety mechanism remains in the **F-FIRE** position, cartridges can be fired every 0.6 seconds.