The semi-parallel ignitor relies on the tapped ballast coil to generate the ignition pulse whereas the superimposed type ignitor has its own coil to generate the pulse. The semi-parallel has many advantages in that it consumes no power when the lamp is running, it is cheaper and lighter but, as it relies on the ballast, it may only be used with the ballast for which it has been specifically designed.

Ignitors sometimes have other features built-in such as self-stopping ignitors that will not continually try to restrike a lamp that has come to the end of its life. There are also some that are designed to produce extra high voltages that can restrike hot lamps.

1.1.5 Electronic Control Gear for Fluorescent Light Sources

Operating fluorescent lamps at high frequency has a number of advantages (see Chapter C / 2.3) and most modern control gears are now of this type. Most electronic ballasts for fluorescent lamps are integrated into a single package that performs a number of functions.

These functions are:

- A low pass filter: this limits the amount of harmonic distortion caused by the ballast.
- Also controls the amount of radio frequency interference, protects the ballast against high voltage mains peaks and limits the inrush current.
- The rectifier: This converts the AC power from the mains supply into DC.
- A buffer capacitor: This stores the charge from each mains cycle thus providing a steady voltage to the circuits that provide the power to the lamps.
- The HF power oscillator takes the steady DC voltage from the buffer capacitor and using semi-conductor switches controlled by the ballast controller creates a high frequency square wave.
- The output of the power oscillator is fed through a small HF coil that acts as a stabilisation coil to the lamp.

Figure 123 shows the main components in typical HF fluorescent lamp ballast.