

# Calcomp 563 Incremental Plotter

This plotter was made in 1973. This series of plotters was introduced in 1959. These have no local intelligence; the computer generated pulses to move the pen by tiny increments of .005 inches. This plotter can move a maximum of 300 steps per second, or about 1.5 inches per second. These plotters came in several different widths. This one has a 29.5 inches wide plot area. It normally used 120 foot long 31 inch wide pin feed paper. The bigger the plot the longer it takes so I'm using small single sheets so easy to give away.

Later pen plotters could move the pen more than 20 times faster and were intelligent so the computer could send coordinates for the lines or plot characters. Pen plotters are now obsolete having been replaced by inkjet plotters.

The plotter uses stepper motors which are special motors that rotate a fixed number of degrees each time the current is changed in their drive coils. The computer sends + or - Y and X pulses to control the stepper motor. The plotter can only step in multiples of 45 degrees. Other angles are drawn by periodically stepping one of the axis such as 71.5 degrees is repeating 2 Y steps then 1 X&Y step. The .005" steps are just visible. The pen is a solenoid which magnetically lifts the pen off the paper when commanded by the computer.

