Ticker Tape Timers

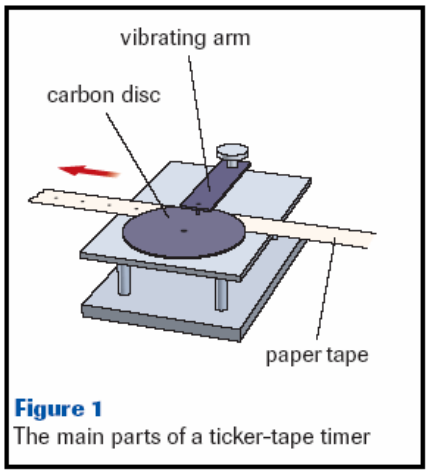


Figure 1
The main parts of a ticker-tape timer

Ticker tape timers measure time and distance (or displacement).

Distance/Displacement: An object that is moving pulls the ticker tape through the timer. How much ticker tape that is pulled through is the same as the distance or displacement of the object.

Generally direction is [forward] or [ahead].

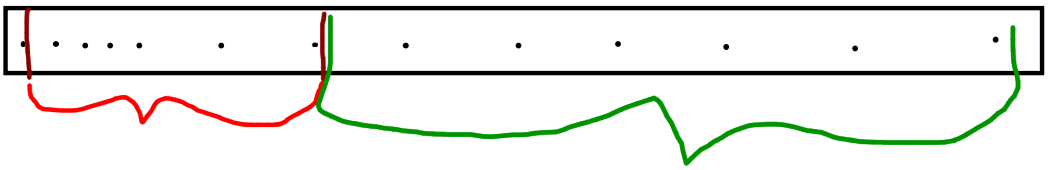
TIme: Wall electricity has a frequency of 60.0 Hz. For each cycle, the timer records a dot, so there are 60 dots put on the tape in one second. This means each dot takes 1/60.0 s

If you count in groups of 6 dots, the group has a time of:

6 x 1/60.0 s

That comes out to 0.100 s

6 dots = 0.100 s



For 2 groups of 6, time = 2 x 0.100 s = 0.200 s

Use a ruler to measure the length for the 2 groups, 10.0 cm

v = d/t

= 10.0 cm / 0.200 s

= 50.0 cm/s