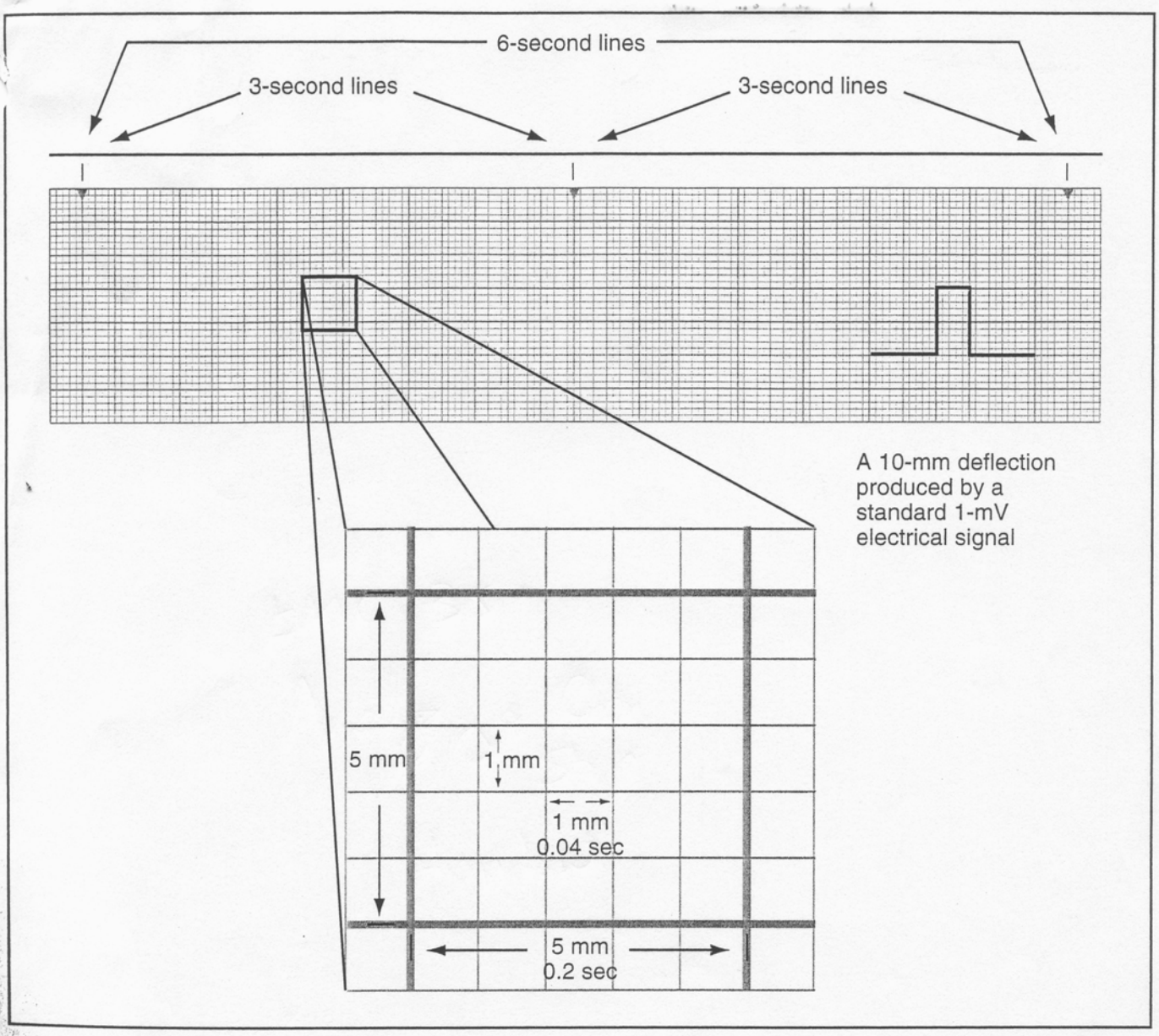

Figure 2-2 ECG paper.

distance in millimeters (mm) along the horizontal lines and voltage (amplitude) in millimeters (mm) along the vertical lines (Figure 2-2).

The grid consists of intersecting dark and light vertical and horizontal lines that form large and small squares. The distance between the vertical lines depends on the paper speed at the time of the ECG recording (i.e., 25 mm or 50 mm per second).

When the ECG is recorded at the standard paper speed of 25 mm/sec, the measurements between the vertical and horizontal lines are as follows:

- The dark vertical lines are 0.20 second (5 mm) apart
- The light vertical lines are 0.04 second (1 mm) apart
- The dark horizontal lines are 5 mm apart
- The light horizontal lines are 1 mm apart
- One large square is 5 × 5 mm
- One small square is 1 × 1 mm

Conventionally, the sensitivity of the ECG machine is adjusted (i.e., calibrated, or standardized) so that a 1-millivolt (mV) electrical signal produces a 10-mm deflection (two large squares) on the ECG.

Printed along one edge of the ECG paper, usually the upper one, are regularly spaced short, vertical lines (or small arrowheads) denoting intervals of time (time lines). Usually, the lines are spaced 15 large squares apart (75 mm, or about 3 inches apart). When the ECG is recorded at the standard paper speed of 25 mm/sec, the vertical lines are 3 seconds