

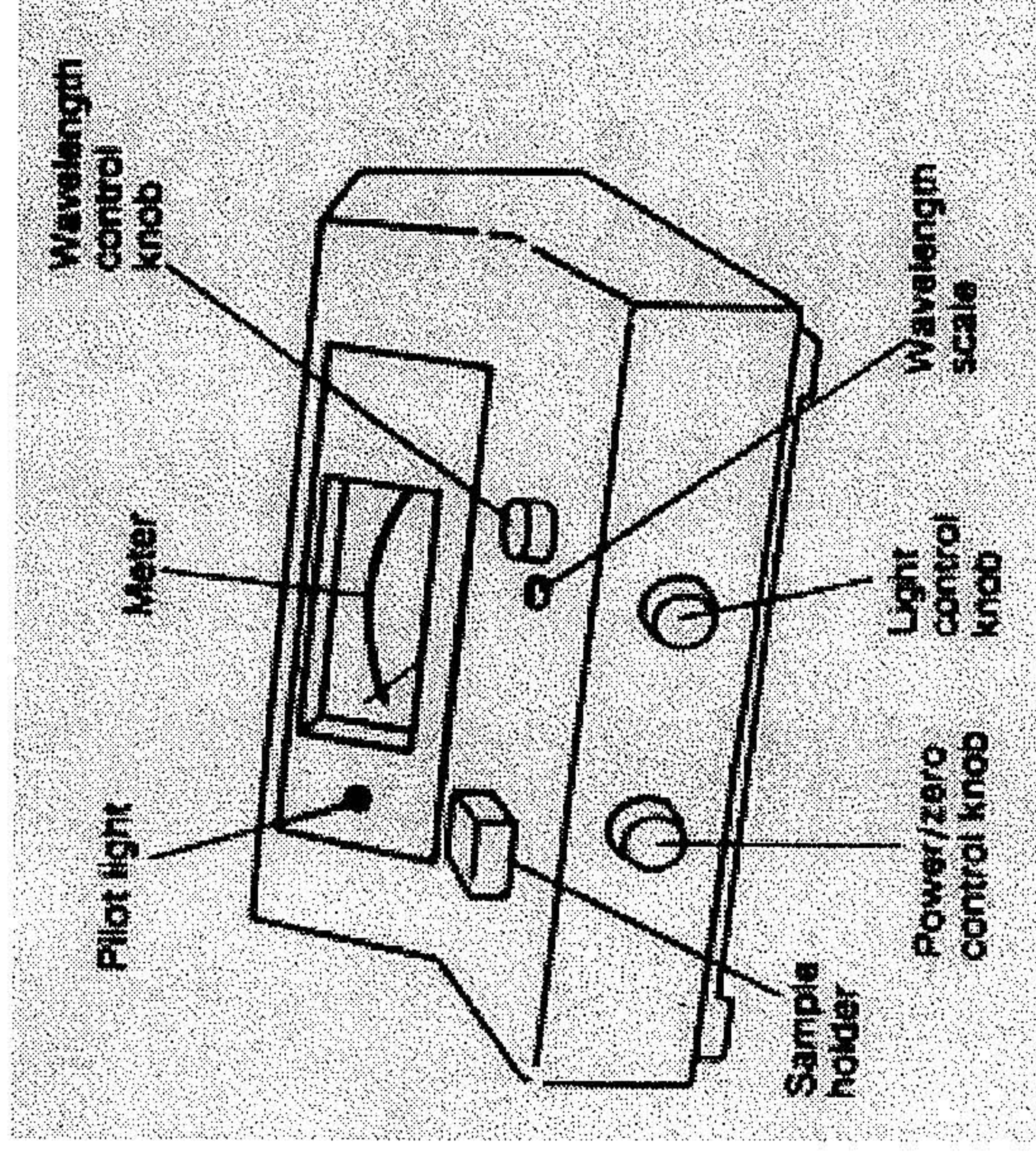
Cuvette

--The cuvettes for use in the Spec 20 resemble small test tubes. Each cuvette is marked so that it can be positioned properly in the sample holder. The mark is at the top of the cuvette and must be positioned toward the front of the spectrophotometer when taking measurements. Handle these tubes with extreme care to keep both the inside and outside surfaces clean and free of scratches.

Cleaning the Cuvette:

1. NEVER use a brush to clean the inside of the cuvette.
2. Rinse the tube with distilled water a few times
3. Add about 1 mL of the solution to be measured. Tilt and turn the cuvette so that the solution has contact with all the surfaces. Discard this solution and repeat this rinse once more.
4. Fill the cuvette about 3/4 full of the solution you wish to test.
5. Wipe the outside of the cuvette with a lint-free, soft tissue (a Chemwipe) to remove any moisture or fingerprints from the outside surface.

Calibrating the Spectronic 20



1. Plug in and turn on the Spec 20. It must warm up for 30 minutes before use. A schematic of an older instrument is shown at the left.
2. Set the instrument to the proper wavelength by turning the knob located on the right hand surface of the spectrophotometer. The wavelength setting can be seen through the window next to the knob.
3. Obtain a properly cleaned cuvette and fill it about 3/4 full of the reference solution (usually water).
4. With no cuvette in the sample holder, close the cover and rotate the zero light control knob (left front knob) to display a reading of 0.0% transmittance. Provided that the instrument is not turned off and this knob is not moved, no other adjustments to this control are needed.
5. Place the reference solution cuvette in the sample holder, close the cover, and rotate the light control knob (front right knob) to display a reading of 100.0% transmittance. This procedure must be repeated every time measurements are taken at a new wavelength or if several measurements are made at the same wavelength.

Taking measurements with the Spectronic 20