



SUBJECT: ALIGNMENT OF BASES ON CATHODE- RAY TUBES Process Specification

SUPERSEDED DATE May 12, 1942

In order that all cathode-ray tubes of the same type be interchangeable with each other, the vertical and horizontal sweep of the electron beam must be in the same direction and in the same plane with respect to arrangement of base pins. To obtain this condition, deflection plates, or second anode, or both (the parts involved depending on the tube type), must be aligned within specified limits of angular deviation with a plane thru center of base and one or two specified base pins.

1. EQUIPMENT

a. 1-Point aligning jigs such as:

- 1. A metal disc with holes for base pins and two arms positioned 180° apart. Each arm has a slit for sighting along ceramic support of mount. Initially used for aligning regular shell bases without base lugs where all leads pass thru base.
- 2. A metal strip made to fit neck and bulb outline. One end of strip with a groove to fit around a single base pin is bent into a L-shape. A slot near other end is made of such a size as to fit over deflection plate contact cap. This latter end is cut out to fit around contact cap of 2nd anode lead. Initially used on regular shell and wafer type bases where deflection plate and/or 2nd anode leads do not pass thru base.

2. PROCEDURE

After lead wires have been properly threaded (p. 3 of 3-1K-()) thru pins of cement filled bases, the lead wires should be bent around ends of base pins to hold bases in place.

Using a glass marking pencil in a slot above base socket, mark a reference line onto both bulb neck and base so that they can be brought back into line should base shift or change its position before tube is put into a chuck on basing machine.

a. Using Jig as in *1a1.

- 1. Place jig over base pins so that arrow mark on jig lies between heater pins. Then twist base so that slit of jig is directly over ceramic support of mount and mark reference line on base and bulb neck.

b. Using Jig as in*1a2.

- 1. Place specified deflection plate lead or 2nd anode contact into slot of jig and align contact cap with designated pin as specified on page 3 of 3-1K-() notice. Then mark reference line as before.

ENGINEERING SECTION STANDARDIZING

* General Revision

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN.

DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

7-539-11-60

PCL21881-133LG

* CHANGE ** ADDITION *** DELETION

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