



Procedures for sealing complete second anode lead assemblies such as FM716B into cathode-ray bulbs or bulb assemblies are outlined herein.

1. EQUIPMENT
  - a. Cannon Burners (gas-air) - For preheating and annealing glass.
  - b. Hand Torches (Hydrogen-oxygen)
  - c. Holder (For second anode lead assembly)
  - d. Glass Rods - Gauge No. 22 Nonex (G702P) cane 8" long.
  - e. Polariscope Spark Coil Wire Cutter
  - f. Glass Working Lathe - Model 781-B
  - g. Templates
  - h. Asbestos cloth
  - i. Misc. tools

2. PROCEDURE

Note: Before using a bulb, inspect it for scratches and blemishes on the face.

A scratched or blemished bulb must not be used without proper authorization.

- a. Position bulb in vacuum chuck on lathe. (Use asbestos cloth on face of chuck.)
- b. Locate position on bulb where anode assembly is to be sealed-in. The sealing point should be 90° to right of bulb number specified in 27-3-1 and the specified distance below reference line, as determined by use of a templet.
- c. Preheat bulb, while rotating in lathe, for 1 minute with a cannon burner.
- d. Stop lathe and, using the hydrogen-oxygen torch, heat bulb where seal is to be made. When glass reaches a molten state, use glass rod to pull soft glass away from bulb, at the same time keeping fire directed at this spot. The force of the flame will blow a hole thru the glass. The hole should be slightly smaller than the bead flange.
- e. Heat glass around hole in bulb to a molten state and at same time preheat anode assembly by holding it, with a wire holder, over hole. Then bring flange of bead into contact with molten rim of glass on bulb, taking care to keep fire on line of contact between bead and bulb, in order to make a good seal.
- f. The splash from fire should soften bead flange enough to allow it to be pulled into a cone shape. Care should be taken to keep inside of cone round.
- g. The lead wire inside bulb should not extend past wall of bulb, except when a speed nut contact is to be used, to prevent interfering with screen trimming or with the beam.
- h. Externally the head-to-bulb seal should conform to dimensions within limits given in accompanying figure.
- i. After sealing-in the bead, rotate bulb and anneal it with the cannon fire. (Flame is approx. 18" long and 1-3/4" wide. Hold end of burner about 15" from bulb).

→ SCALE— \* General revision

DIMENSIONS IN UNLESS OTHERWISE SHOWN. DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

14-539-11-60 1331G

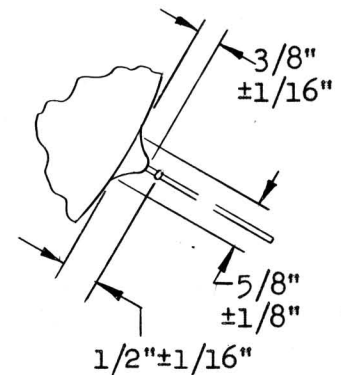
\* CHANGE  
 \*\* ADDITION  
 \*\*\* DELETION

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2. PROCEDURE (Cont'd)

- j. Check bulb for strains with polariscope. If bulb is strained it must be re-annealed.  
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- l. Inspect bulb assembly for scratches on face and for other defects.
- m. Cut anode lead to correct length by using a 3903 contact cap as a gauge.



ENGINEERING SECTION  
 STANDARDIZING

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN. DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

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\* CHANGE  
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