



SUBJECT:

REMOVAL OF EXTERNAL BULB COATINGS  
Process Specification

SUPERSEDES July 22, 1949

This specification covers the process for removing external coatings from bulbs of salvaged cathode-ray tubes. The process is initially intended to be performed on bulbs from which the mount has been removed.

- 1. EQUIPMENT a. Bulb External Washing Machine - Model L886BR, 1603.
- 2. MATERIALS Oakite M3 Stripper (caustic), 8000 cc. per charge.  
\*\*\*  
Tap Water, hot and cold.  
Steel Wool or Wire Brush.



CAUSTIC HANDLING PRECAUTIONS - See S.N. 33-2-8A.

Specific Precautions:

- a. Rubber gloves must be worn while working in or around equipment.
- b. Fan must be kept running as long as the caustic solution is at elevated temperature.

3. PROCEDURE

- a. To start machine:
  - 1. Fill tank with water to approximately 2" over pump intake strainer; i.e.; about 8" or 30 gallons of water.
  - 2. Turn on steam.
  - 3. Turn on lights and fan.
  - 4. Charge tank with caustic, 8000 cc.
  - 5. Turn on pump.
  - 6. Bring tank temperature up (see schedule on p. 2), and hold there by closing steam valve back until almost closed.
  - 7. Adjust hot and cold water valves to give rinse water of proper temperature (see schedules on page 2).
- b. To operate machine:
  - 1. Load bulb on carrier.
  - 2. With poker handle, push bulb into spray position.
  - 3. Allow caustic to run down over bulb until coating is peeled off. (see schedules on page 2).
  - 4. With poker handle, bring bulb into water rinse position.
  - 5. Turn on water and rinse off bulb (see schedules on page 2).
  - 6. Rub off remaining coating spots with steel wool or wire brush.
  - \*\*7. Scrub area around glass cone to metal cone seal with steel wool and Bon Ami to remove silicone. Removal of the silicone is complete when this area can be wetted with water.
  - 8. If paint remains, repeat steps (2) to (6).
  - 9. If internal coating shows any signs of being wet, rinse inside of bulb.
  - 10. Unload bulb.
  - 11. If excessive foaming of caustic is observed, add a very small amount of Dow Corning Antifoam until foaming reduces.

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN.

DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

3-5311-4-60

PCL22126-133L6

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

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REMOVAL OF EXTERNAL BULB COATINGS  
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SUPERSEDES

3. PROCEDURE (Cont'd)

c. To shut down:

1. Turn off steam.
2. Turn off pump.
3. Allow fan to run until tank cools sufficiently to stop steaming.
4. Turn off fan and lights.
5. Shut off all valves except steam return.
6. Drain and clean out tank when necessary.

4. SCHEDULES

SCHEDULE NO. 1

(Initially for 16AP4 and 16GP4)

1. PROCEDURE

- a. Caustic wash,  $82 \pm 6^{\circ}\text{C}$ . ( $180 \pm 10^{\circ}\text{F}$ .), approximately 90 sec.
- b. Water rinse,  $38 - 60^{\circ}\text{C}$ . ( $100 - 140^{\circ}\text{F}$ .).

SCALE—

End of Schedule No. 1

DIMENSIONS IN

UNLESS OTHERWISE SHOWN. DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

8-5311-9-60

PCL22126-126LG

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

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SUPERSEDES July 22, 1949

SCHEDULE NO. 2

(Initially for 10BP4, 12LP4, 1816P4, and 7DP4)

1. PROCEDURE

- a. Caustic wash,  $54 \pm 6^{\circ}\text{C}$ . ( $130 \pm 10^{\circ}\text{F}$ .), approximately 90 sec.
- b. Water rinse,  $38 - 60^{\circ}\text{C}$ . ( $100 - 140^{\circ}\text{F}$ .).

\*Data Rearranged

End of Schedule No. 2

SCALE—  
 DIMENSIONS IN

UNLESS OTHERWISE SHOWN. DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

9-5311-9-60 126LG

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

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SUBJECT: REMOVAL OF EXTERNAL BULB COATINGS  
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SCHEDULE NO. 3

(Initially for 5TP4 and as an alternate for Schedules No. 1 and No. 2)

1. PROCEDURE

a. Remove the coating by hand rubbing with steel wool and the following mixture:

- Acetic acid (glacial) - - - - - 25% by volume
- Methanol - - - - - 25% by volume
- Acetone - - - - - 50% by volume

SCALE—

End of Schedule No. 3

DIMENSIONS IN

UNLESS OTHERWISE SHOWN. DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

10-5311-9-60 126LG

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

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REMOVAL OF EXTERNAL BULB COATING KcX3

SUBJECT: Process Specification

SUPERSEDES

This specification applies to the removal of S267 or S271 Silicone coating from the glass neck cone.

SCHEDULE NO. 5

(Initially for Tube Type 21AP4)

1. EQUIPMENT:
  - a. Bulb External Washing Machine Model L886BR, 1603.
  - b. 3" or 4" brush with stiff bristles.
2. MATERIALS:
  - - - - Bab-O or similar cleanser
  - - - - Running Tap Water
3. PROCEDURE
  - a. The removal of the silicone coating may be carried out on the bulb external washing machine or separately as required.
  - b. Wet brush with water and sprinkle with cleanser. Brush the glass bulb of the tube, adding sufficient cleanser to work up a good lather.
  - c. Work entirely around the cone brushing thoroughly from the glass cone to metal cone seal to the reference line.
  - d. Rinse the tube with running water and examine the glass cone for evidences of a water break. If the water does not form a smooth even coating over the entire cone repeat steps (b) and (c) above. Otherwise the cone is clean.

Note: The procedure for cleaning of glass tubes is the same except that the area cleaned is the 6" diameter circle around the button.

End of Schedule #5

SCALE—

DIMENSIONS IN

UNLESS OTHERWISE SHOWN.

DIMENSIONS SHOWN WITHOUT TOLERANCES ARE DESIGN CENTERS

1-5310-2-62

WEP-133JR

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

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