



## RADAR TUBES

9in. diameter Radar Display Tubes with metal backed screens, magnetic deflection and low voltage electrostatic focus.

|            |     |     |                            |
|------------|-----|-----|----------------------------|
| FOCUS      | ... | ... | Low Voltage Electrostatic. |
| DEFLECTION | ... | ... | Magnetic.                  |
| → SCREENS  | ... | ... | Metal Backed.              |

|              | 9/03HB    | 9/03JB   | 9/03LB    |
|--------------|-----------|----------|-----------|
| Phosphor     | Type 'H'* | Type 'J' | Type 'L'* |
| Fluorescence | Orange    | Blue     | Orange.   |
| Afterglow    | Orange    | Yellow   | Orange.   |
| Persistence  | very long | long     | long.     |

For further details refer to the relevant phosphor characteristics at the front of this section of the handbook.

### PHYSICAL DETAILS.

|                     |     |     |                    |
|---------------------|-----|-----|--------------------|
| Base                | ... | ... | B12A (Duodecal).   |
| Anode Cap           | ... | ... | CT8 (Cavity Type.) |
| Max. Overall Length | ... | ... | 408 mm.            |
| Nom. neck diameter  | ... | ... | 35 mm.             |

For other dimensions see drawing overleaf.

Mounting Position ... Any.

These tubes have an external conductive coating which may be used for E.H.T. smoothing.

### BASE CONNECTIONS.

|                                     |                      |
|-------------------------------------|----------------------|
| Pin 1—Heater.                       | Pin 7—No Connection. |
| Pin 2—Grid.                         | Pin 8—No Pin.        |
| Pin 3—No Pin.                       | Pin 9—No Pin.        |
| Pin 4—No Pin.                       | Pin 10—1st Anode.    |
| Pin 5—No Pin.                       | Pin 11—Cathode.      |
| Pin 6—3rd Anode.                    | Pin 12—Heater.       |
| Side Contacts—2nd Anode, 4th Anode: |                      |

### HEATER.

|                 |     |     |            |
|-----------------|-----|-----|------------|
| †Heater Voltage | ... | ... | 6.3 volts. |
| Heater Current  | ... | ... | 0.3 amp.   |

### RATINGS.

|                                  |     |     |             |
|----------------------------------|-----|-----|-------------|
| Max. $a_1$ Voltage               | ... | ... | 500 volts.  |
| Min. $a_1$ voltage               | ... | ... | 200 volts.  |
| Max. $a_2 + a_4$ voltage         | ... | ... | 15 kV.      |
| Min. $a_2 + a_4$ voltage         | ... | ... | 8 kV.       |
| Max. Pos. $a_3$ voltage          | ... | ... | +500 volts. |
| Max. Neg. $a_3$ voltage          | ... | ... | -500 volts. |
| §Max. Neg. grid voltage          | ... | ... | -200 volts. |
| Max. $Z_g - k$                   | ... | ... | 0.5 MΩ      |
| Max. $R_g - k$                   | ... | ... | 1.5 MΩ      |
| ‡Max. $R_h - k$                  | ... | ... | 1.0 MΩ      |
| Max. $V_h - k$ (heater negative) | ... | ... | 200 volts.  |
| (heater positive)                | ... | ... | 150 volts.  |

### TYPICAL OPERATION.

|                               |     |     |                     |
|-------------------------------|-----|-----|---------------------|
| 1st Anode Voltage             | ... | ... | 300 volts.          |
| 2nd and 4th Anode voltage     | ... | ... | 12 kV.              |
| **3rd Anode voltage for focus | ... | ... | -300 to +300 volts. |
| $V_g$ for visual cut off      | ... | ... | -30 to -70 volts.   |

\*These screens are liable to burn if operated with a spot which is stationary or slow moving. The tube should not be operated under such conditions, even at low beam current.

†When used for series operation, a current limiting device should be incorporated in the circuit to ensure that the surge heater voltage does not exceed 9.5 volts r.m.s.

§The grid should never be positive with respect to the cathode.

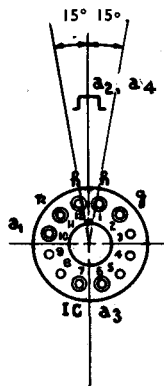
‡This value of  $R_h - k$  is applicable only when the heater has a separate transformer. In series heater chains, the impedance between cathode and earth should not exceed 100kΩ

\*\*The point of optimum focus lies between these values.

9/03HB

9/03JB

9/03LB



Base  
Connections  
View from spigot  
end of tube



9/03HB

9/03JB

9/03LB

CAPACITANCES.

|             |     |     |     |     |                 |
|-------------|-----|-----|-----|-----|-----------------|
| $C_k$ -all  | ... | ... | ... | ... | <8 pF.          |
| $C_g$ -all  | ... | ... | ... | ... | <8 pF.          |
| $C_{a2}$ -M | ... | ... | ... | ... | 750 pF. approx. |

