

VALVE ELECTRONIC **CV1664**

GENERAL POST OFFICE: E-IN-C (S)

(POVT 88 ) AR 13

| Specification: G.P.O./CV 1664/Issue 3<br>Dated: 18.6.47<br>To be read in conjunction with K 1001 | <table border="1"> <tr> <th colspan="2">SECURITY</th></tr> <tr> <td>Specification</td><td>Valve</td></tr> <tr> <td>Restricted</td><td>Restricted</td></tr> </table> | SECURITY |  | Specification | Valve | Restricted | Restricted |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--|---------------|-------|------------|------------|
| SECURITY                                                                                         |                                                                                                                                                                     |          |  |               |       |            |            |
| Specification                                                                                    | Valve                                                                                                                                                               |          |  |               |       |            |            |
| Restricted                                                                                       | Restricted                                                                                                                                                          |          |  |               |       |            |            |

→ indicates a change

|                                                                                            |        |       |                                       |                                                                                |            |      |
|--------------------------------------------------------------------------------------------|--------|-------|---------------------------------------|--------------------------------------------------------------------------------|------------|------|
| <u>TYPE OF VALVE:</u> Triode                                                               |        |       |                                       | <u>MARKING</u><br><br>See K 1001/4                                             |            |      |
| <u>CATHODE:</u> Directly heated                                                            |        |       |                                       |                                                                                |            |      |
| <u>ENVELOPE:</u> Unmetallised glass                                                        |        |       |                                       |                                                                                |            |      |
| <u>PROTOTYPE</u> 4022 AR                                                                   |        |       |                                       |                                                                                |            |      |
| <u>RATING</u>                                                                              |        |       | Note                                  | <u>BASE</u><br>Bayonet cap 4-pin (BC4)<br>See drawing on page 3<br>and Note B. |            |      |
| Filament current                                                                           | (A)    | 0.25  |                                       | <u>CONNECTIONS</u>                                                             |            |      |
| Nominal filament voltage                                                                   | (V)    | 4.0   |                                       | Pin                                                                            | Electrode  |      |
| Max. anode voltage                                                                         | (V)    | 190   |                                       | 1                                                                              | Grid       |      |
| Mutual conductance                                                                         | (mA/V) | 2.2   |                                       | 2                                                                              | Filament - |      |
| Amplification factor                                                                       |        | 12.0  |                                       | 3                                                                              | Filament + |      |
| Anode impedance                                                                            | (ohms) | 5,500 |                                       | 4                                                                              | Anode      |      |
| <u>CAPACITANCES (pF)</u>                                                                   |        |       | <u>DIMENSIONS</u><br>See K 1001/A1/D1 |                                                                                |            |      |
| C <sub>ag</sub>                                                                            | (max)  |       | Dimension                             |                                                                                | Min.       | Max. |
| C <sub>ae</sub>                                                                            | (max)  |       | A (mm)                                |                                                                                | -          | 120  |
| C <sub>ge</sub>                                                                            | (max)  |       | B (mm)                                |                                                                                | -          | 50   |
| <u>NOTE</u>                                                                                |        |       |                                       |                                                                                |            |      |
| A. Measured with V <sub>a</sub> = 130, and V <sub>g</sub> = -4.5                           |        |       |                                       |                                                                                |            |      |
| B. The axis of the bayonet locating pin shall lie within 25° of the plane of the filament. |        |       |                                       |                                                                                |            |      |

TESTS

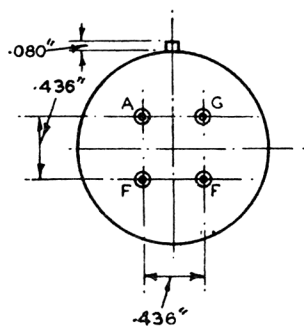
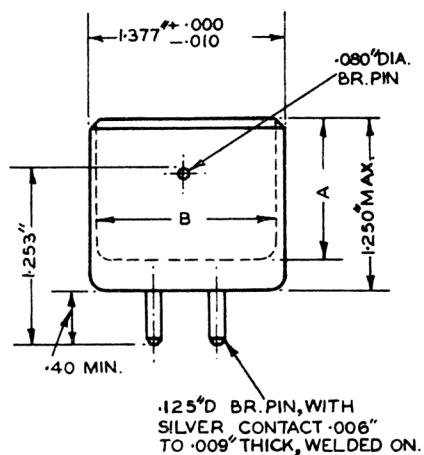
To be performed in addition to those applicable in K 1001

|     | TEST CONDITIONS  |               |                          | TEST                  | LIMITS |        | No. Tested | Note |
|-----|------------------|---------------|--------------------------|-----------------------|--------|--------|------------|------|
|     |                  |               |                          |                       | Min.   | Max.   |            |      |
| (a) | See K 1001/A III |               |                          | CAPACITANCES (pF)     |        |        |            |      |
|     | Links to H.P.    | Links to L.P. | Links to E.              |                       |        |        |            |      |
|     | 4                | 1             | 2,3,5,6,7,8,9,10,TC1,TC2 | (i) Cag               | -      | 12.0   | 6 per week |      |
|     | 4                | 2,3           | 1,5,6,7,8,9,10,TC1, TC2  | (ii) Cae              | -      | 5.0    | 6 per week |      |
|     | 1                | 2,3           | 4,5,6,7,8,9,10,TC1,TC2   | (iii) Cge             | -      | 9.0    | 6 per week |      |
|     | If(A)            | Va            | Vg                       |                       |        |        |            |      |
| (b) | 0.25             | -             | -                        | Vf (V)                | 3.7    | 4.3    | 100%       |      |
| (c) | 0.25             | 130           | -4.5                     | Ra"x" (ohms)          | 4200   | 6800   | 100%       |      |
| (d) | 0.23             | 130           | -4.5                     | Ra"y" (ohms)          | -      | 1.2"x" | 100%       | 1    |
| (e) | 0.25             | 130           | -4.5                     | $\mu$                 | 10.8   | 13.3   | 100%       |      |
| (f) | 0.25             | 130           | -4.5                     | Reverse Ig ( $\mu$ A) | -      | 0.5    | 100%       |      |
| (g) | 0.25             | 130           | -13                      | Ia ( $\mu$ A)         | -      | 200    | 100%       |      |

NOTE

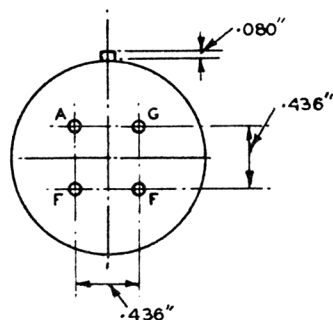
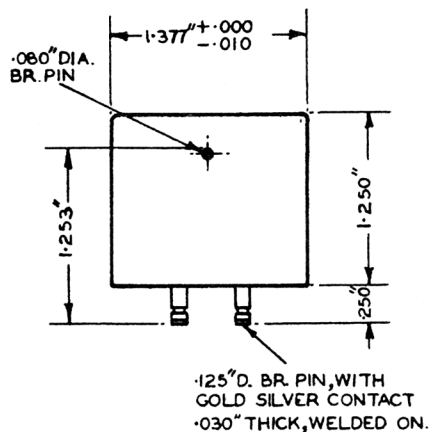
1. Re-adjust If with  $V_a = V_g = 0$

## OUTLINE DRAWING



INTERNAL DIMENSIONS A & B  
TO SUIT MANUFACTURERS  
REQUIREMENTS.

FIG. 1. MOULDED TYPE.



MATERIAL:—NI. P. BRASS CYLINDER  
WITH MOULDED INTERIOR.

FIG. 2. METAL SHELL TYPE.

SPECIFICATION GPO/CV1664/ISSUE 3.

AMENDMENT NO.1

Page 1.

DIMENSIONS

Amend the maximum limit dimension "A" to read 118mm.

Amend the maximum limit dimension "B" to read 46mm.

January 1950

T.V.C. Office  
(for G.P.O.)

N.6101.