

VALVE ELECTRONIC CV 386

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

Specification: G.P.O./CV 386/Draft Issue 5	<u>SECURITY</u>	
Dated: 22nd April 1948	Specification	Valve
To be read in conjunction with K 1001 ignoring Clause 5.2	Restricted	Restricted

→ indicates a change

<u>TYPE OF VALVE:</u> Sub-miniature pentode	<u>MARKING</u>	
<u>CATHODE:</u> Directly heated	CV 386	
<u>ENVELOPE:</u> Unmetallised glass	Code date of manufacture	
<u>PROTOTYPE:</u> CK 505 AX (Raytheon)	Factory identification code	
<u>RATING</u>		<u>BASE</u>
	NOTE	See drawing on page 3
Filament voltage (V)	0.625	
Nominal filament current (mA)	25.0	
Max. anode voltage (V)	45.0	
Max. screen voltage (V)	45.0	
Mutual conductance (mA/V)	0.18	A
Anode impedance (megohms)	0.5	A
Optimum anode load (megohms)	1.0	A
Nominal voltage gain	35.0	
		<u>CONNECTIONS</u>
		See drawing on page 3
		<u>DIMENSIONS</u>
		See drawing on page 3

NOTE

A: Measured with $V_a = V_{g2} = 30$, and $V_{g1} = 0$

This valve type is obsolescent and is superseded by CV 443

TESTS (see Note 1)

To be performed in addition to those applicable in K 1001

	Test Conditions			Test	Limits		No. Tested
	V _f	V _{HT}	f(c/s)		Min.	Max.	
a	0.625	-	-	If (mA)	22	28	100%
b	0.55	20	50	Gain (Note 2) (db)	17	-	100%
	0.75	20	50				
c	0.55	30	50	Gain (Note 2) (db)	26	-	1.0%
	0.75	30	50				
d	0.55	20	50	Gain (Note 3) (db)	23	-	100%
	0.75	20	50				
e	0.55	30	50	Gain (Note 3) (db)	27	-	1.0%
	0.75	30	50				
f	0.75	30	-	Microphony (Note 4)	-	Note 4	1.0%

Note 1:- The equipment used for testing is to be approved by C.I.E.M.E.

Note 2:- Tested in Test Circuit 1 shown on page 4

Note 3:- Tested in Test Circuit 2 shown on page 4

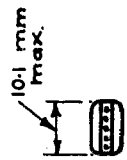
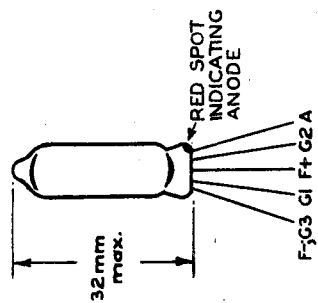
Note 4:- The microphony test may be undertaken on the manufacturers' standard testing equipment if such is suitable and the limits to be adopted shall be established as follows:-

A valve will be inserted in Test Circuit 2 (shown on Page 4) with $V_p = 0.75$, $V_{HT} = 30$, with the oscillator input shorted and the oscillator inoperative. The valve will be hit a standard blow with a hammer as described in the Specification for Valve Electronic CV 61 Issue 4, dated 24.11.43. The peak-peak output voltage developed between the test point and HT-, as measured on a cathode ray tube, must then be not more than 1.5 volt.

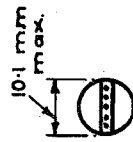
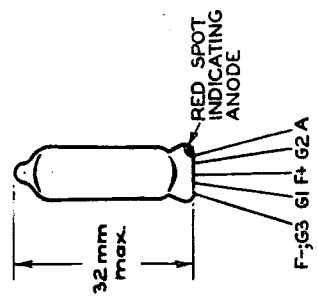
The equivalent maximum limit on the manufacturers' test set can then be established and agreed by the inspecting authority.

PIN CONNEXIONS & OUTLINE DRAWING

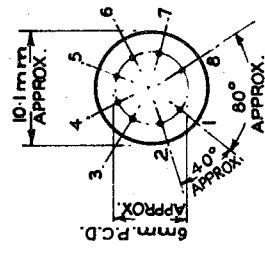
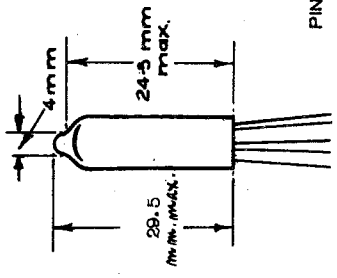
AMERICAN TYPE BULB



FLAT PINCH



WAFER BASE



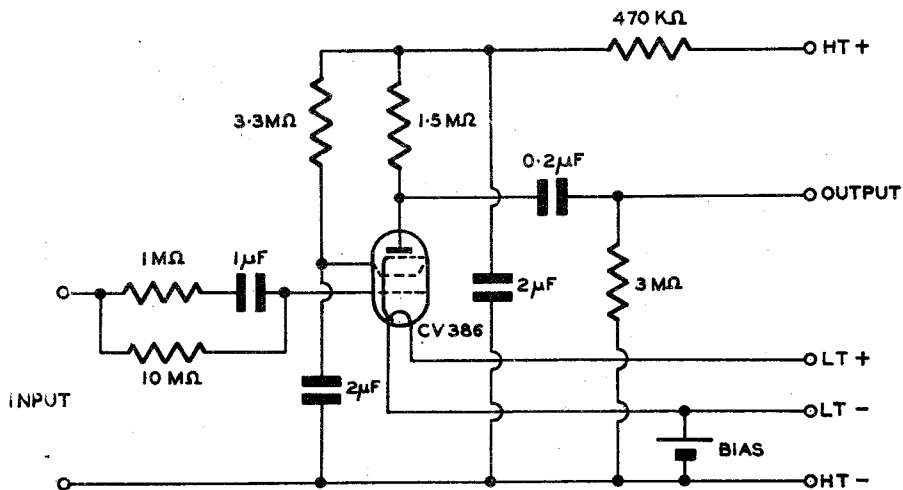
- PIN 1 OMITTED
 - 2 G1
 - 3 OMITTED
 - 4 - FIL & G3
 - 5 +FIL
 - 6 OMITTED
 - 7 A
 - 8 G2
- ANODE CONNEXION ON PIN 7 TO BE INDICATED BY A SUITABLE RED MARK

SPACING OF LEADS 1.3 mm.

VALVE BASE APPROX. $\frac{2}{1}$

→ THE LEADS SHALL BE FLEXIBLE 25 TO 27 S.W.G. TINNED COPPER WIRE AT LEAST 32 mm. IN LENGTH.

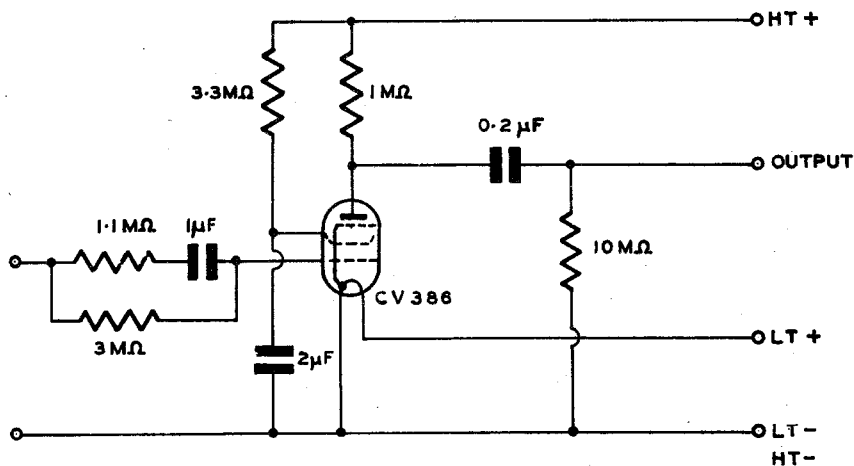
TEST CIRCUIT 1



NOTE 1. BIAS VOLTAGE = LT. VOLTAGE
= V_F QUOTED IN SPECIFICATION

NOTE 2. OUTPUT IS MEASURED BETWEEN OUTPUT TERMINAL & HT-

TEST CIRCUIT 2.



NOTE OUTPUT IS MEASURED BETWEEN OUTPUT TERMINAL & HT-