SPECIFICATION AD/CV.1483-86 ISSUE NO. 4 DATED 23/7/57

AMENDMENT NO. 1

Page 3 (Lower half)

Insert inches sign (i.e. ") after the figure 1.53 in the legend "Edge of Radiator to axis of thread 1.53" max."

TVC for A.S.R.E.

December, 1958.

N.44390

ELECTRONIC VALVE SPECIFICATIONS

SPECIFICATION AD/CV1483-86

Issue No. 4 DATED 23.7.57

AMENDMENT NO. 2

Page 3 Remove existing page 3 and substitute new pages 3 and 4 herewith.

April, 1962 ADMIRALTY SURFACE WEAPONS ESTABLISHMENT

(12498)

VALVE ELECTRONIC

CVI483 CVI484 CVI485 CVI486

ADMIRALTY SIGNAL AND RADAR ESTABLISHMENT

Specification AD/CV1483, CV1484, CV1485,	SECUE	RITY
CV1486.	Specification	<u>Valve</u>
To be read in conjunction with K1001 ignoring clauses 5.2, 5.3 and 5.8.	Unclassified	Unclassified

_ Indicates a change

TYPE OF VALVE:	Magne tron			MARKING
CATHODE:	Indirectly heated, oxide-coated.			See K1001/4
ENVELOPE:	Copper and Glass.			Additional Marking: Serial No
PROTOTYPE:	E1373.			Dertal Mo
RAT	INGS			DIMENSIONS & CONNECTIONS
All limiting ve	lues are absolute.	~	Note	See drawing on Page 3
Heater Voltage		5.0	A	
Heater Current	(A)	2.6		
Nominal Frequen	cies: CV1483 (Mc/s)	3592		
	CV1484 (Mc/s) CV1485 (Mc/s)	3550 3510		• •
	CV1486 (Mc/s)	3470		
Max. Anode Diss		400	В	
TYPICAL OPERATI	NG CONDITIONS			٠
Peak Anode Volt	age (kV)	26	C	
Peak Anode Curr		40	C	
Peak Power Outp	ut (k#)	400	С	
				L

NOTES

- A. Vh = 5.0V for starting only. For normal running Vh = OV.
- B. During operation and testing, air must be blown through a suitable fitting enclosing the cooling fins of the anode so that the block temperature does not rise above 140°C.
- C. These figures are for pulse operation with:-
 - (i) Pulse recurrence frequency : 500 pps.
 - (ii) Pulse length : 0.5/uS. (iii) Pulse shape : Sensibly square.
 - (iv) Field strength : 2300 oersteds (See Note D)
- D. The valve is expected to operate with any field in the range 2300 + 100 cersteds. This point will be checked at Type Approval.
- E. The magnetron shall be processed so as to ensure, as far as possible, that only brief ageing (of the order of 5 mins. or less) is necessary when it is put into service.
- F. In use, the cathode lead side of the valve shall be adjacent to the north pole of the magnet.

TESTS

To be performed in addition to those applicable in K1001 and after a holding period of 7 days.

	Test C	onditions	_		Li	nits	No.	Note
	Ψh (V)	Ia Peak (A)	Tes	t	Min.	Max.	Tested	
а	5.0	-	Ih	(A)	2.3	2.9	100%	1
ъ	0	4 0	Va Peak	(kV)	23.5	29.5	100%	2
С	0	4 С	Frequenc CV1483 CV1484 CV1485 CV1486	(Mc/s) (Mc/s) (Mc/s)	3530 3490	3614 3570 3530 3490	100%	2,3
đ	0	40	Peak Out Power	put (kW)	360	1	100%	2
c	0 varied from 30 loading for op at 40A. The c quency is to b	hange of fre-	Frequenc Continu		The from shall smooth without continuand by more the following shall be sha	ly and t dis- uity not nan	100%	2

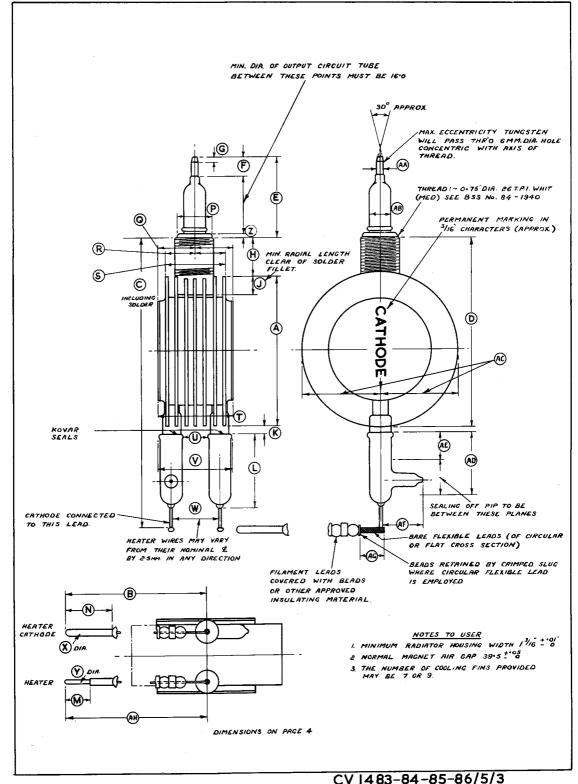
NOTES

- 1. Vh = 5.0V for starting only. For normal running Vh = OV.
- The valve is to be tested (tests 'b' to 'e') under the following conditions:-
 - (i) Pulse Recurrence frequency : 500 pps.
 - (ii) Min. Pulse length : 0.5/uS.
 - (iii) Pulse shape : Sensibly square.
 - (iv) Field strength : 2300 + 20 oersteds.

No serious or persistent flashing (internal or external) shall occur during the tests.

- 3. Grouping and Remeasurement If, on a single remeasurement, a valve falls within an adjacent group, action shall be taken according to the extent of the discrepancy:-
 - (a) By not more than 6 Mc/s. The grouping remains unchanged.

 - (b) By more than 20 Mc/s. Re-group accordingly. (c) By an amount between 6 Mo/s and 20 Mc/s. Make three more remeasurements; if the average of the four measurements shows a discrepancy of less than 6 Mc/s, the grouping remains unchanged; if more than 6 Mc/s, re group accordingly.



OUTLINE DIMENSIONS.

S Phick DIMENSION	(3)							
INCHES m.m. INCHES INCHES m.m. INCHES I	DEFEDENCE	DIMEN	Sion	NOTE	OCCEDENCE	DIME	NOISI	1
3.0±0.02	nei entitor	INCHES	m . m.	2	אכן בארואיני	INCHES	m.m.	301
149 ± 3 INCLUDING U O-437 MIN. 95 MAX. V 42 MAX. 149 ± 1.0 W 24.5 CRS. 10 MIN. X 16±1/64 DIA. 3 MAX. Y 5/64±1/64 DIA. 3/6 MIN. 2 3/32 NOM. 11/4 MIN. GLASS AC 1.53 MAX. 11/4 MIN. GLASS AC 1.53 MAX. 15/6 NOM. GLASS AC 1.53 MAX. 15/6 NOM. GLASS AC 0.9 MAX. 15/6 NOM. AF O.9	∢	3.0+0.02			5	13/6-8.01		
149 + 3 SOLDER U 0-437 MIN. 95 MAX. V 24-5 CRS. 10 MIN. X 19+164 DIA. 3 MAX. X 564164 DIA. 3 MAX. X 564164 DIA. 16 MIN. AB 4+0.1 16 MIN. AB 4+0.1 16 MIN. AB 4+0.1 16 MIN. AB A-0.2 16 MIN. AB A-0.2 16 MIN. AB A-0.2 16 MIN. AB A-0.2 16 MIN. AB AB A-0.2 17 MIN. AB AB A-0.2 18/6 NOM. AB AB A-0.2 18/6 NOM. AB AB A-0.2 18/6 NOM. AB AB AB 19-5 MAX. ACE OF MAX.	80		+1		1		37-5 MAX.	400
S5 MAX. V 42 MAX. 42 MAX. 10 MIN. X 16±1/64DIA. 24.5 CRS. 3 MAX. Y 564±1/64DIA. 16 MIN. Z 3/32 NOM. 4 ± 0.1 16 MIN. GLASS AC 1.53 MAX. 15/16 NOM. AB 14 MAX. 15/16 NOM. AB 0.9 MAX. AF 0.87 MAX. 19.5 MAX.	ပ		+1	INCLUDING	כ	0-437 MIN.		1207
419±10 W 24.5 CRS. 3 MAX. W 56±1640IA. Sex±1640IA. Sex±1	۵		95 MAX.		>			
10 MIN. X ½=½401A. 3 MAX. Y 564±½401A	u		0-1-6-14		*		24.5 CRS.	
3 MAX. Y \$\left\(\frac{5}{6} \pm \right\) Se4 \pm \right\) Se	Ŀ				×	18-1640IA.		
36 MIN. 16 MIN. 2 3/32 NOM. 4 + 0·1 1/6 NOM. AB + + 0·1 14 MAX. 1/4 MIN. GLASS AC 1·53 MAX. 14 MAX. 1/2 NOM. GLASS AC 1·53 MAX. AMAX. 1/2 NOM. AB 0·9 MAX. AR AR 1/5 NOM. AF 0·4 MIN. AR AR 0·69-0·009 ARX. AF 0·87 MAX. APPROX. 19·5 MAX. ARISON. AR 10 APPROX. 19·5 MAX. ARISON. AR 10 APPROX.	5				Y	%4±1/6401A		
36 Min. AA + 0 · 1 1/6 NOM. AB + 0 · 1 1/4 Min. GLASS AC 1 · 53 MAX. 1/2 NOM. AB 0 · 9 MAX. 15/16 NOM. AE 0 · 4 Min. 15/16 NOM. AF 0 · 4 Min. 0 · 69 - 0 · 009 AF 0 · 87 MAX. 19 · 5 MAX. AF 0 · 87 MAX. 19 · 5 MAX. AF 0 · 87 MAX. 19 · 5 MAX. AF 0 · 87 MAX. 19 · 5 MAX. AF 0 · 87 MAX. 19 · 5 MAX. AF 0 · 87 MAX. 10 APPROX AKINGS OF THIREAD. AH	I				2	i i		
1/6 NOM. GLASS AB 14 MAX. 1½ MIN. GLASS AC 1-53 MAX. ½ NOM. AB 0.9 MAX. 15/6 NOM. AF 0.4 MIN. 0-69-0.009 AF 0.87 MAX. 19-5 MAX. AG 10 APPROX. 19-5 MAX. AG 10 APPROX. 19-5 MAX. AG 10 APPROX. 185±5 AH 185±5	ם	3/8 MIN.			AA			
1/4 MIN. GLASS	¥	Vie NOM.			AB			
15/16 NOM. AE O' 9 MAX. 15/16 NOM. AE O' 9 MAX. O'69-0'009 O'69-	_	14 MIN.		GLASS	AC			EDGE OF RAD -IATOR TO AXIS OF THREAD
15/6 NOM. AE 0.4 MIN. 10.69-0.009 19.5 MAX. TO AKIS OF BLOCK AG 19.5 MAX. TO AKIS OF THE OF T	Σ	1/2 NOM.			AD		2	
19-5 MAX. PACE OF BLOCK 19-5 MAX. TARES OF RAG 19-5 MAX. FACE OF RAG 19-5 MAX. FACE OF RAG AXIS OF THREAD AXIS OF THREAD AXIS OF THREAD	Z	15/16 NOM.			AE	ı		
19.5 MAX. TO AKIS OF AGE TO AKIS OF THREAD FACE OF BAD AKIS OF THREAD AKIS OF THREAD	۵	600-0- 69 -0				0-87 MAX.		
O-62 MAX. FACE OF TARE	σ	gri		FACE OF BLOCK TO AKIS OF THREAD			IO APPROX	
	œ	0.62 MAX.		FACE OF BAD LIATOR THREAD AXIS OF THREAD			185±5	