

DESIGNS DEPARTMENT MANUFACTURING INFORMATION

No. 5.403(81)

TRANSPOSER PERSONALITY PANEL PA1M/579A

Written by: M. T. Ellen

.....  
(G.G. Johnstone)  
for Head of Designs Department

This drawing/specification is the property of the British Broadcasting Corporation and may not be reproduced or disclosed to a third party in any form without the written permission of the Corporation.

**BBC**

DS/SPA4

DESIGNS DEPARTMENT MANUFACTURING INFORMATION

No. 5.403(81)

TRANSPOSER PERSONALITY PANEL PA1M/579A

PRODUCTION TEST SCHEDULE

C O N T E N T S

1. Description
2. Information
3. Manufacturing performance specification
4. Warning
5. Inspection checks
6. Test Procedure

Appendix I. Wiring instructions for channel and offset selection.

D R A W I N G S

Circuit	D50040A4
Parts List	D50041A4
Assembly	D50042A1
Details 1 & 2	D50043A2
Legend	D50044A2

D.D.M.I. No. 5.403(81)  
Contents Sheet

This drawing/specification is the property of the British Broadcasting Corporation and may not be reproduced or disclosed to a third party in any form without the written permission of the Corporation.

**BBC**

DS/SPA4

DESIGNS DEPARTMENT MANUFACTURING INFORMATION

No. 5.403(81)

TRANSPOSER PERSONALITY PANEL PA1M/579A

PRODUCTION TEST SCHEDULE

1. Description

This panel comprises two UHF band pass filters and a control unit. The lower filter selects the input channel and the upper filter selects the output channel. The control unit consists of a 25 pole connector with solder bucket pins that are earthed as required to set the dual frequency synthesiser to the appropriate channels and offsets. Three potentiometers are also fitted in the control unit to adjust the transposer's output power, maximum gain and slope across the channel.

The PA1M/579A supercedes the PA1M/579 which was fitted with an earlier design of filter (FL2/559, 560) and a 25 pole connector with wire wrap pins. The two personality panels are electrically similar and either type may be fitted in a quadruple transposer TM4M/502.

2. Information

- 2.1 Designed in RF Section (5), Designs Department.
- 2.2 Designer and Engineer Responsible: M. T. Ellen.
- 2.3 Handbook: Part of D.D. Handbook No. 5.156(81).
- 2.4 No technical instruction available 1.6.81.
- 2.5 Pre-production batch of 2 tested at D.D.

3. Manufacturing Performance Specification

The test procedure does not call for any electrical measurements to be made, however, the two filters should have been lined up before assembly, to meet the specification given in D.D.M.I. No. 5.405(81).

4. Warning

No voltage above 50 volts d.c. or 30 volts a.c. are connected to this unit.

5. Inspection checks

5.1 Electrical

Check that PLT has been correctly wired in accordance with D50040A4 and Appendix I.

5.2 Mechanical

Check that the personality panel has been assembled correctly in

Continued .....

D.D.M.I. No. 5.403(81)  
Sheet 1 of 3 sheets

accordance with D50042A1. Check that the appropriate channel and service labels have been fitted on the front panel.

## 6. Test Procedure

### 6.1 To set Power, Gain and Slope potentiometers

6.1.1 By connecting an ohm meter between pin 25 and pins 13, 12 and 11 in turn, adjust the potentiometers as shown below.

6.1.2 R1 -  $16000 \pm 200\Omega$  (SLOPE)  
R2 -  $50 \pm 5K\Omega$  (maximum resistance) (GAIN)  
R3 -  $6200 \pm 200\Omega$  (POWER)

6.1.3 This should set the associated transposer (TM4M/503) to a nominal output power of 2 watts, maximum gain and zero slope (Symmetrical frequency response).

6.2 Provided that the filters have been aligned correctly and that the instructions in section 5 have been carried out, it is only necessary to trim the power, gain and slope controls in accordance with the TM4M/503 production test schedule, DDMI 5.394(81).

DDMI No. 5.403(81)  
Sheet 2 of 3 sheets

Wiring instructions for channel and offset selection

0 = connection to earth, 1= no connection

PLT pin numbers for input channel selection	20	19	18	17	16	15	14	offset pins	
PLT pin numbers for output channel selection	7	6	5	4	3	2	1	8	9
Channel									
21	1	0	0	0	0	0	0		
22	1	0	0	0	0	0	1		
23	1	0	0	0	0	1	1		
24	1	0	0	0	0	1	0		
25	1	0	0	0	1	0	1		
26	1	0	0	0	1	1	0		
27	1	0	0	0	1	1	1		
28	1	0	0	1	0	0	0		
29	1	0	0	1	0	0	1		
30	1	0	0	1	0	1	0		
31	1	0	0	1	0	1	1		
32	1	0	0	1	1	0	0		
33	1	0	0	1	1	0	1		
34	1	0	0	1	1	1	0		
35	1	0	0	1	1	1	1		
36	1	0	1	0	0	0	0		
37	1	0	1	0	0	0	1		
38	1	0	1	0	0	1	0		
39	0	0	1	0	0	1	1		
40	0	0	1	0	1	0	0		
41	0	0	1	0	1	0	1		
42	0	0	1	0	1	1	0		
43	0	0	1	0	1	1	1		
44	0	0	1	1	0	0	0		
45	0	0	1	1	0	0	1		
46	0	0	1	1	0	1	0		
47	0	0	1	1	0	1	1		
48	0	0	1	1	1	0	0		
49	0	0	1	1	1	0	1		
50	0	0	1	1	1	1	0		
51	0	0	1	1	1	1	1		
52	0	0	1	1	1	1	1		
53	0	1	0	0	0	0	0		
54	0	1	0	0	0	0	1		
55	0	1	0	0	0	1	0		
56	0	1	0	0	0	1	1		
57	0	1	0	0	1	0	0		
58	0	1	0	0	1	0	1		
59	0	1	0	0	1	1	0		
60	0	1	0	0	1	1	1		
61	0	1	0	1	0	0	0		
62	0	1	0	1	0	0	1		
63	0	1	0	1	0	1	0		
64	0	1	0	1	0	1	1		
65	0	1	0	1	1	0	0		
66	0	1	0	1	1	0	1		
67	0	1	0	1	1	1	0		
68	0	1	0	1	1	1	1		
69	0	1	1	0	0	0	0		
negative output offset								0	1
zero output offset								1	0
positive output offset								1	0

This drawing/specification is the property of the British Broadcasting Corporation and may not be reproduced or disclosed to a third party in any form without the written permission of the Corporation.

D 50040 A4

ORIGINAL  
FRAME SIZE  
190mm x 277mm

THIRD ANGLE  
PROJECTION

A dimensions in millimetres unless otherwise stated.  
1. mm unless otherwise stated.  
0.3 mm unless otherwise stated.  
0.1 mm unless otherwise stated.

This drawing specification is the property of  
the British Broadcasting Corporation and may  
not be reproduced or disclosed to a third party  
without the written permission of  
the Corporation.

**BBC**

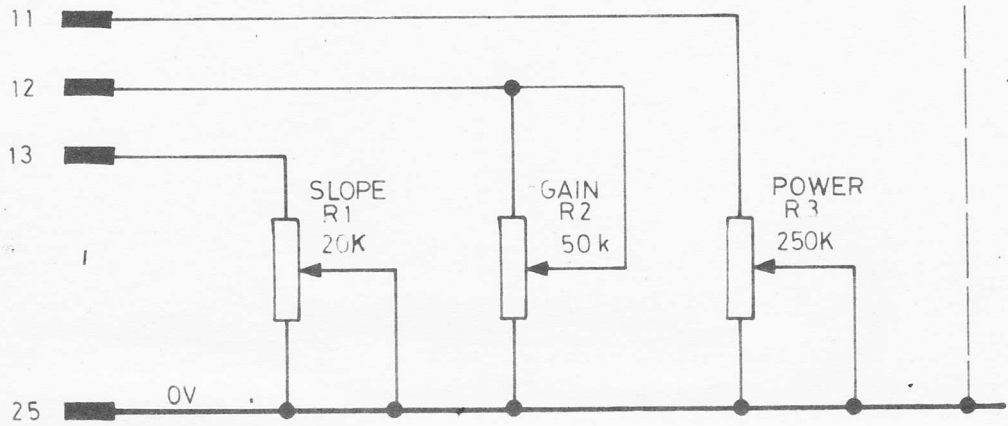
DS A4

NOT USED 10, 21-24

PLT

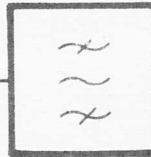
1-9, 14-20

TAGS TO BE CONNECTED SEE ORDER



SKC

INPUT  
CHANNEL  
FILTER

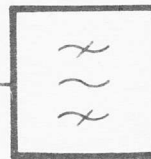


FL 2/565

SKD

SKE

OUTPUT  
CHANNEL  
FILTER



FL 2/565

SKF

PARTS LIST D50041A4

SCALE

CHANGE

1 19-6-81

PA1M / 579A  
TRANSPOSER PERSONALITY PANEL  
CIRCUIT

DRN	R.R.
TCD	
CKD	R.J.H.
APPD	R.E.

DESIGNS DEPARTMENT

D50040A4

D50041A4

SHT. 1 OF 2 SHTS.

PA1M/579A  
**TRANSPOSER PERSONALITY PANEL**  
**PARTS LIST**

ISS.	CHANGE
1	19-6-81
IA	RM. 14.7.81
2	F.H.L. 8-9-81

ITEM No.	No OFF		DESCRIPTION	CCT REF.	BBC REF. OR DRG. No.
			CIRCUIT	D50040A4	
			PARTS LIST	D50041A4	
			ASSEMBLY	D50042A1	
			DETAILS 1 & 2	D50043A2	
			LEGEND	D50044A2	
			FURTHER INFORMATION REQUIRED FOR MANUFACTURE		
			UNIT ASSEMBLY INFORMATION EA 10484		
			<b>D30992A4-CP</b> D49985A3-CP, D49986A2-CP		
			UNIT WIRING INFORMATION EA10137		
			SPEC ED/PA1M/579A		
1	2	⊖	FL2 /565		
2					
3					
4					
5	1		FRONT PANEL, LEGEND TO D50044A2		D50043A2 DET. 1
6					
7	1		BAR		D50043A2 DET. 2
8					
9					
10	1	*	CANNON 'D' PLUG, FIXED 25 WAY, SOLDER POT.	PL.T	25019/025-0351278
11	1	*	CINCH, 25 WAY SPRING CLIP, CODE R43 81965 00 000000		0437871
12					
13					
14	4	*	SPACER, M3 x 8LQ x 10 DIA.		D30992A4 - CP. DET. 25
15					0437804
16					
17					
18	2	*	THUMBSCREW		552245-0326656
19	2	*	WASHER (SHAKEPROOF)		" 0400310
20	2	*	NYLON SPLIT WASHER		" 040102X
21					
22					
23					
24					
25	3	*	RESISTOR MOUNTING		00007-0331977
26					
27					
28					
29					
30	2		SOLDER TAG, 6 BA D/E		
31					
32					
33					
34					
35					
36					
37					
38					

This drawing/specification is the property of the British Broadcasting Corporation and may not be reproduced or disclosed to a third party in any form without the written permission of the Corporation.

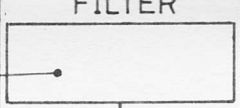
**BBC**

DS/PLA4

PA1M/579A  
 TRANSPOSER PERSONALITY PANEL  
 PARTS LIST

DRN.	C.R.W.	DESIGNS DEPARTMENT
TPD.		
CKD.	R.J.H.	D 50041A4
APPD.	M.T.E	SHT. 1 OF 2 SHTS.

40 - SEE NOTE 4



SKE



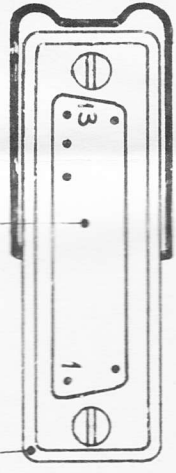
POWER



GAIN



SLOPE



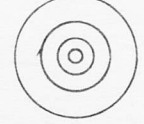
10

11

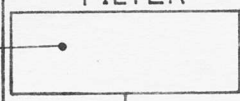
PLT



SKD



INPUT CHANNEL FILTER



41 - SEE NOTE 4