Z501/1

THE ENGLISH ELECTRIC CO., LTD.

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DEUCE Subroutine No. 224 (B08/1)	Report No.	NS t 203
	Date	30.10.57.
	Reference	
	Order No.	
	Report by	J. O'Brien.

Front Sheet.

Data Sheet 1.

Figure Sheet S6/11016.

SUMMARY.

The attached document contains details of a DEUCE Subroutine which has been prepared and tested by E.E. Co. Luton.

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UA

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Description. This subroutine is similar to B08 in that it brings down D delay lines from the drum starting with track T into delay line D. It is faster than B08 but has not the programme testing facilities of B08, and it occupies part of the high speed store. Each fetched programme must start in 1_{31}.

Data. A codeword $T \times P_1 + D \times P_{17}$ (+ P_{32} if pseudo-stoppers are required for programme testing) in T.S.13 where $0 \leq T \leq 255$ and $1 \leq D \leq 10$.

Uses. (a) 1 m.c. of previous programme.

(b) 1_{31} of fetched programme for the link.

Result. Tracks T to T-D+1 are put into D.L.'s D to 1 (in that order) Thus track 0 can only go into D.L.1.

Instructions for Use.

Stores Used.	13	14	15	21_2	21_3	11
Contents at Entry.	$TxP_1 + DxP_{17}$	-	-	-	*	-
Contents at Exit.	$(T - D)P_1$	-	15-0	(1 11-1 1 0 31)	-	Track T-D+1

Entry. 1_{31}. Each programme to be followed by a fetched programme should end with codeword -13

12-1 (16 m.c.)
1_{31}

Occupies. D.L.12_{16} to 31.

N.B. * If the codeword has a P_{32} the subroutine will stop before calling for a head shift. 21_3 will only be affected when the codeword has a P_{32}.

D.L. 12 Track

Card Nos.

mc	NIS	S	D	C	W	T		
								Y
								X
								0
								1
0								2
1								3
2								4
3								5
4								6
5								7
6								8
7								9
8								Y
9								X
10								0
11								1
12								2
13								3
14								4
15								5
16		15P5 + P32						6
17	1	13	14		0	0		7
18	1	1	21		0	1		8
19	1	1	21		3	5		9
20	[illegible]	[illegible]	30		0	23		Y
21	1	24	14	1	0	3		X
22	1	11	0	1	0	31		0
23	1	23	14	1	24	2		1
24	1	0	31		0	18		2
25	1	14	22		1	1		3
26	1	25	22		0	0		4
27	1	1	26		0	1		5
28	0	21	0		0	0		6
29		P1+P17						7
30	1	1	21		22	25		8
31	1	1	15		15	16		9

1_{31} 1_{16} - 15 [15P5 + P32]
1_{17} 13 - 14
1_{19} 1_{24} - 21_2 [1 0 - 31 0 18]
1_{26} 25 - 22_2
1_{28} 21_2 - 0
Q_{30}(1_{24} a - 31) (T = 16a + b)
1_{18} 1_{20} - 21_2 [1 0 - 30 0 23]
1_{21} 24 - 14 (4 mc.)
1_{26} 25 - 22_2
1_{28} 21_2 - 0
Q_{20}(1_{20} b - 30)
1_{23} 23 - 14 (11 mc.)
1_{27} 1_{29} - 26 [P1 + P17]
1_{30} 1_{22} - 21_2 [1 11 - 0 1 0 31]
1_{25} 14 - 22_2
1_{28} 21_2 - 0
Q_{30}(1_{22} 11 - D)

D ≠ 1

D = 1

1_{31} Fetched Programme.

FLOW DIAGRAM AND CODING FOR DEUCE

SUBROUTINE NO. 224 (B08/1). Programme fetch.

Date

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