NELSON RESEARCH LABORATORIES NS t 1214
STAFFORD E. E. CO. LTD Sheet No. 1.

DEUCE Programme No. 369 (ZP42)

Bin.-Dec. Conversion.

SUMMARY.

This programme (prepared and tested by E.E. Co. Whetstone) converts cards punched with one binary number per row to p binary places, to decimal, 3 per card. It is intended primarily for converting the results of POST MORTEM to decimal.

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OPERATING INSTRUCTIONS. (This program will not work from the 64α field. Use ZP42/1 No 449)

Input. Programme Cards 0-15.
Cards punched in Binary (p binary places) $-2 \leq p \leq 37$.

After reading in the programme the machine stops at 4, 0-0. Set pP_1 on the I.D. and give a single shot. The programme then reads one card and punches five alternately.

Output. The first four cards of each five punched out contain the 12 binary numbers from the corresponding input card, in decimal, 3 per card. The fifth card contains the number of decimal places in the previous four in DEUCE column 6.

NOTE: If a P_{32} is set on the I.D. as well as p P_1 (and p is positive) the machine will stop at 4 1-1. The value of p can then be altered. (If p is negative the absence of a P_{32} has the same effect). A single shot restarts the programme. If p is different for the (n+1)th card it is not sufficient to feed in n cards and then to alter the I.D. when the machine stops on 1, 0-6. The P_{32} must be added AFTER the nth card has started to be read and BEFORE the nth set of 5 decimal cards has finished being punched.

Failure. 4, 6-24X, buzzer, means p is outside the range. If p is set in the correct range and a single shot given the buzzer will stop and the programme continues.

THE ENGLISH ELECTRIC CO. LTD. Sheet No. 99/11084.

Deuce Programme

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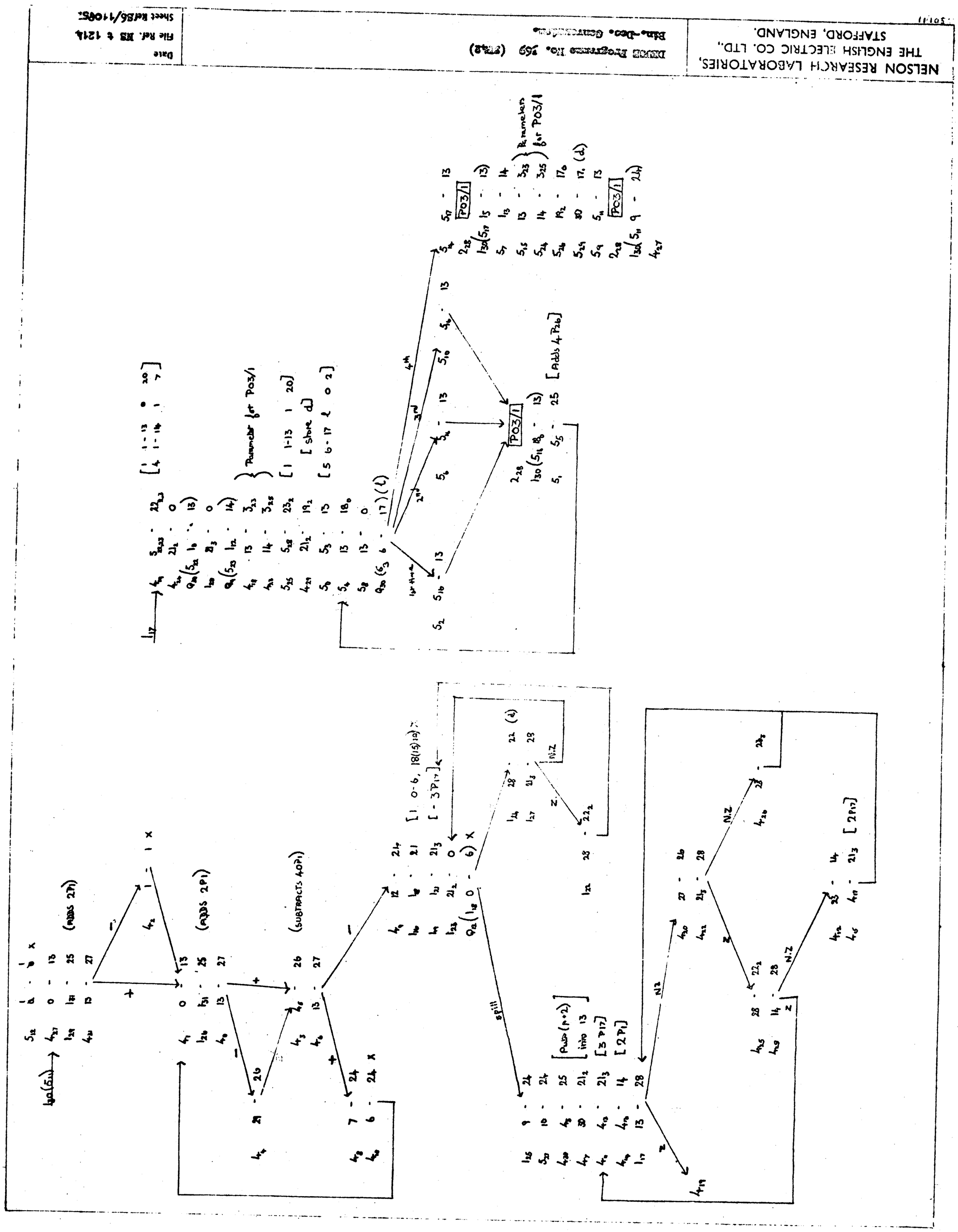
D.L. 1. Track Card Nos. 13-15								D.L. 4 Track Card Nos. 7-9								D.L. 5 Track Card Nos. 10-12								
mc	NIS	S	D	C	W	T		mc	NIS	S	D	C	W	T		mc	NIS	S	D	C	W	T		
																								Y
																								X
																								0
		5	0		1	30																		1
0		1,	29,	11,	16,	11,	2·1	0		4	13	27	0	1		0		5	5	13	1	2		-2
1		9,	28,	14,	12,	30,	10·1	1		1	0	13	0	23		1		5	5	25	2	1		3
2		11,	19,	18,	31,	21,	21·1			4	1	1	0	29	X	2		2	5	13	12	24		4
3		3,	20,	23,	23,	17,	1·1			4	4	26	0	1		3		5	6	17	l 0	2		5
4		4,	17,	21,	5,	30,	9·1	4		4	29	26	0	29		4		5	13	18	2	2		6
5		12,	29,	2,	23,	13,	20·1					40 P1				5				P28				7
6		12,	26,	13,	18,	24,	0·1	6		4	13	27	0	0		6		2	5	13	8	20		8
7		31,	8,	1,	23,	30,	8·1			4	30	21	1	2		7		5	1	14	4	6		9
8		6,	19,	25,	12,	6,	19·1	8		4	7	24	0	0		8		5	13	0	l 0	20		Y
9		0,	0,	0,	0,	0,	0·1			1	12	24	0	5				2	5	13	0	17		X
10		0,	0,	0,	0,	0,	8·1	10		4	6	24	0	21	X	10		2	5	13	4	16		0
11		0,	0,	0,	0,	0,	18·1	11		4	4	21	0	1		11		4	9	24	0	27		1
12		3	22	21	l	19	22	12		4	23	14	0	1		12		4	0	0	0	13	X	2
13		3	22	21	d	19	22	13				3P17				13								3
14		3	21	21		19	22	14		1	4	14	0	1		14		2	5	13	1	12		4
15		3	21	22	d	19	22	15		1	4	21	0	0		15		5	13	3	6	7		5
16		1	1	21		0	1	16				P2				16		5	18	13	0	1		6
17		4	13	28		0	0	17				2P17				17		5	1	13	5	7		7
18		1	0	6		18(15)	10 X	18		4	13	3	3	3		18								8
19		1	1	21		0	2	19		4	5	22	d 1	3		19								9
20		0	21	0	l	0	19	20		4	27	26	0	0		20								Y
21				(- 3P17)				21								21								X
22		1	28	22		0	27	22		4	21	28	1	1		22		1	1	13	0	20		0
23		0	21	0	l	0	19	23		5	14	3	0	0		23		4	1	14	1	7		1
24		1	28	22	d	0	1	24		0	21	0	l 0	4		24		5	14	3	31	0		2
25		5	9	24		0	0	25		4	28	22	1	1		25		4	5	23	1	2		3
26		4	1	25		3	4	26		1	28	23	1	21		26		5	19	17	0	1		4
27		1	21	28		0	25			1	0	13	0	0		27		4	10	24	0	1		5
28		0	13	0		0	0	28		4	14	28	0	13		28		1	1	13	1	20		6
29		4	1	25		0	0	29		5	21	19	1	1		29		5	30	17	d 2	10		7
30								30		4	4	25	5	7		30								8
31			P2c					31		4	13	27	0	0		31								9


Parameter for P03/1
[store d]
P03/1
Renumber for P03/1
(ADDS 2P1)
(SUBTRACTS 4OP1)
[ADDS 4 P26]
[2P17]
[3 P17]
[2P1]
N.Z
spill