(1) First Ignition Channel (I0) Router

Steering Inputs

A   B   C

(from uS side)

X0
X1
X2
X3
X4
X5
X6
X7
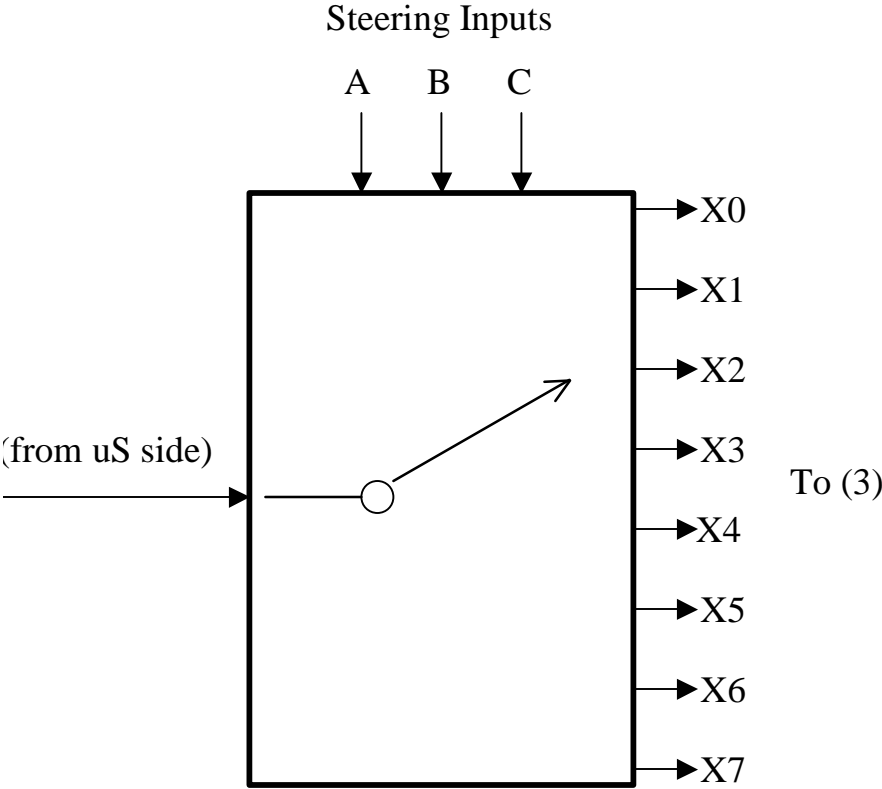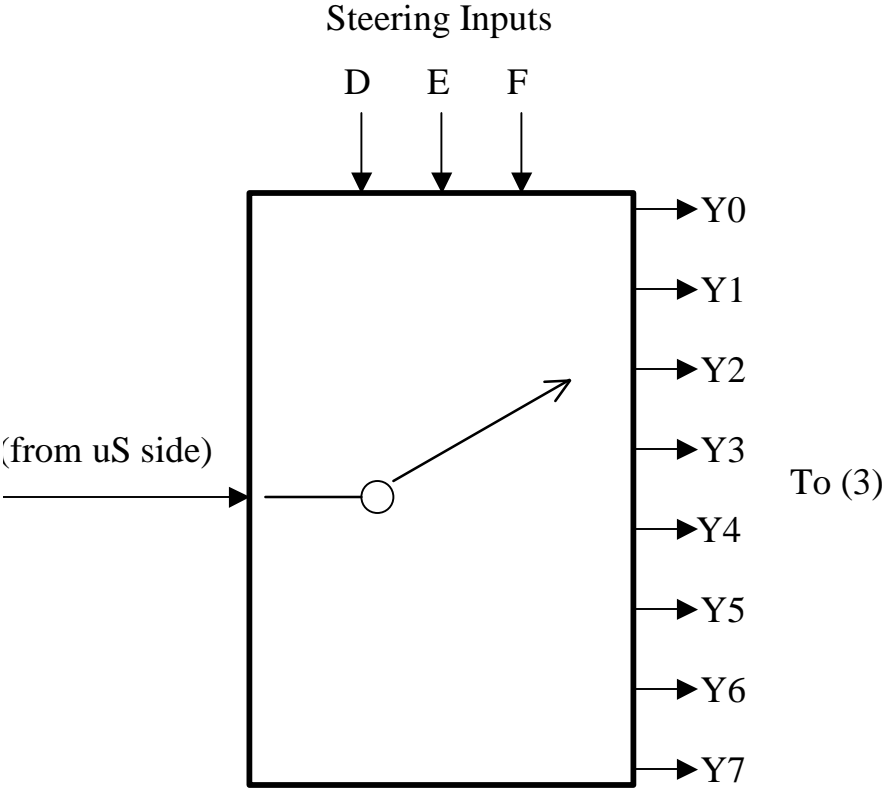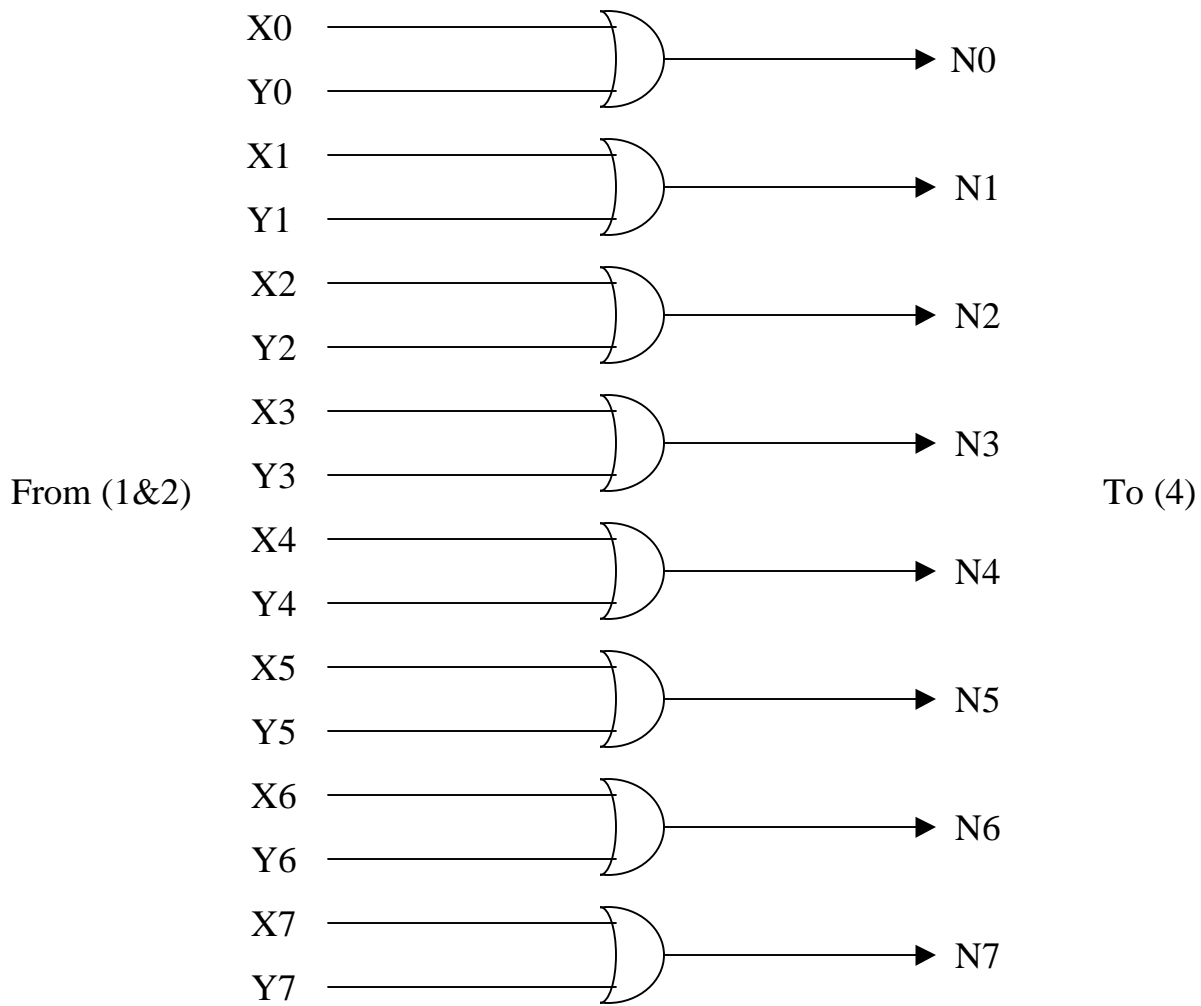
To (3)

IO	C	B	A	X7	X6	X5	X4	X3	X2	X1	X0
0	x	x	x	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	1
1	0	0	1	0	0	0	0	0	0	1	0
1	0	1	0	0	0	0	0	0	1	0	0
1	0	1	1	0	0	0	0	1	0	0	0
1	1	0	0	0	0	0	1	0	0	0	0
1	1	1	1	0	0	1	0	0	0	0	0
1	1	1	0	0	1	0	0	0	0	0	0
1	1	1	1	1	0	0	0	0	0	0	0

(2) Second Ignition Channel (I1) Router

Steering Inputs

D   E   F

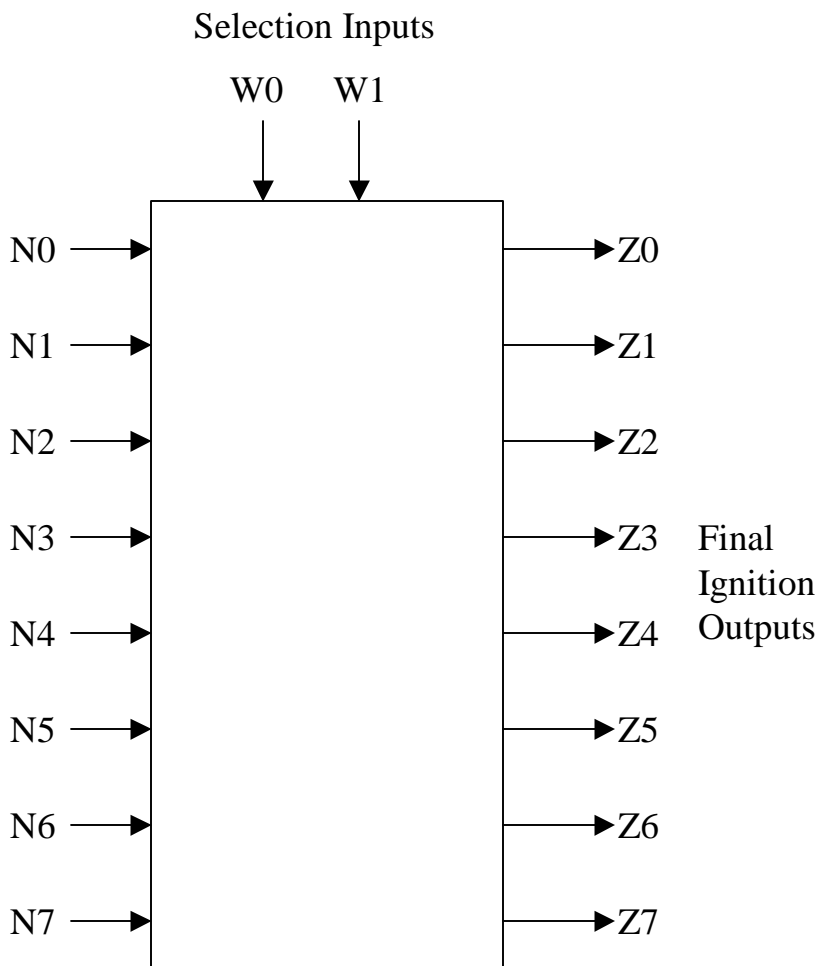(from uS side)

Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7

To (3)

I1	F	E	D	Y7	Y6	Y5	Y4	Y3	Y2	Y1	Y0
0	x	x	x	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	1
1	0	0	1	0	0	0	0	0	0	1	0
1	0	1	0	0	0	0	0	0	1	0	0
1	0	1	1	0	0	0	0	1	0	0	0
1	1	0	0	0	0	0	1	0	0	0	0
1	1	1	1	0	0	1	0	0	0	0	0
1	1	1	0	0	1	0	0	0	0	0	0
1	1	1	1	1	0	0	0	0	0	0	0

(3) Combine Channels

X0

Y0

N0

X1

Y1

N1

X2

Y2

N2

X3

Y3

N3

From (1&2)

To (4)

X4

Y4

N4

X5

Y5

N5

X6

Y6

N6

X7

Y7

N7

(4) Group Channels (In Wasted Spark Mode)

Selection Inputs

W0   W1

N0 → Z0

N1 → Z1

N2 → Z2

N3 → Z3   Final

Ignition

N4 → Z4   Outputs

N5 → Z5

N6 → Z6

N7 → Z7

W0	W1	Grouping Definition	
0	0	Full COP Mode (no groupings)	
1	0	Four-Cylinder Grouping	
0	1	Six-Cylinder Grouping	
1	1	Eight-Cylinder Grouping	

4-Cyl Mode	6-Cyl Mode	8-Cyl Mode
Z0 = N0	Z0 = N0	Z0 = N0
Z1 = N1	Z1 = N1	Z1 = N1
Z2 = N0	Z2 = N2	Z2 = N2
Z3 = N1	Z3 = N0	Z3 = N3
Z4 = 0	Z4 = N1	Z4 = N0
Z5 = 0	Z5 = N2	Z5 = N1
Z6 = 0	Z6 = 0	Z6 = N2
Z7 = 0	Z7 = 0	Z7 = N3