

FM Priority	Switch			Priority Determines Outcome		Position of 3 switches determines outcome	
	3-pos SA	3-pos SB	3-pos SC	FM Logic		Additional Voice Logic Required	
1	1	0	2	L13	SA-1 AND SC-3	L34	SA-1 AND L33
2	0	0	2		None	L33	SB-0 AND SC-2
3	2	2	1	L12	L4 AND SC-1	x	Same
4	1	2	1	L11	L3 AND SC-1	x	Same
5	0	2	1	L10	SB-2 AND SC-1	L31/L32	SA-0 AND SB-2 / L31 AND SC-1
6	2	1	1	L9	L2 AND SC-1	x	Same
7	1	1	1	L8	L1 AND SC-1	x	Same
8	0	1	1	L7	SB-1 AND SC-1	L30	L7 AND SA-1
9	2	0	1	L6	SA-2 AND SC-1	L29	L6 AND SB-0
10	1	0	1	L5	SA-1 AND SC-1	L28	L5 AND SB-0
11	0	0	1		None	L26/L27	SB-0 AND SC-1 / L26 AND SA-0
12	2	2	0	L4	SA-2 AND SB-2	L25	L4 AND SC-0
13	1	2	0	L3	SA-1 and SB-2	L24	L3 AND SC-0
14	0	2	0	x	None	L22/L23	SB-2 AND SC-0 / L22 AND SA-0
15	2	1	0	L2	SA-2 AND SB-1	L21	L2 AND SC-0
16	1	1	0	L1	SA-1 AND SB-1	L20	L1 AND SC-0
17	0	1	0	x	None	L18/L19	SB-1 AND SC-0 / L18 AND SA-0
18	2	0	0	x	None	L17	L14 AND SA-2
19	1	0	0	x	None	L16	L14 AND SA-1
20	0	0	0	x	None	L14/L15	SB-0 AND SC-0 / L14 AND SA-0

Take Aways:

- 1) Takes a minimum of 13 logical switches to run 20 FMs
- 2) Takes an additional 21 logical switches to assign sounds to 20 FMs
- 3) If FMs could be used as inputs to sounds, it would free up a LOT of power
- 4) More logical switches should be added to serve additional roles
- 5) NAND and NOR switches would make this a lot more elegant, and be useful in a lot of other ways
- 6) Can Multi be used to simplify this mess? Don't think it works with sounds