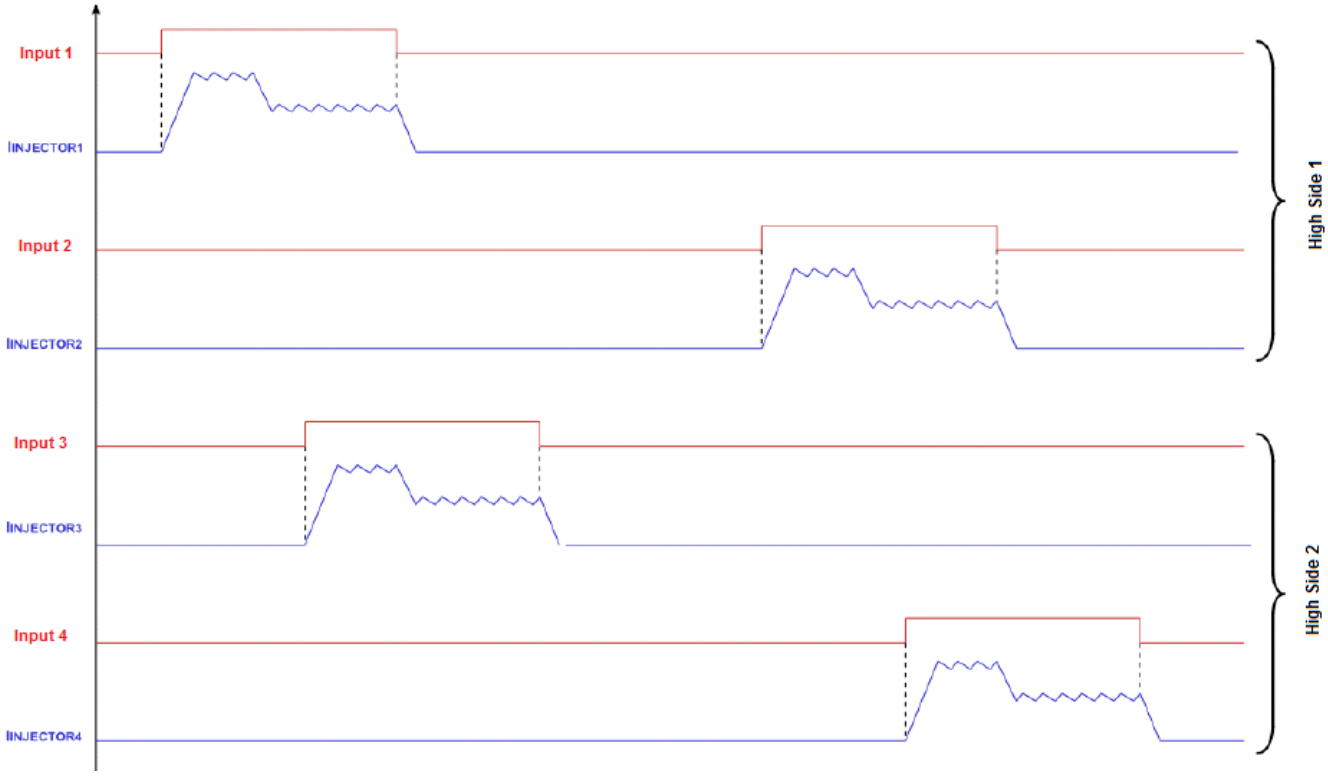
Each High Side Driver output has a current sensor present in the circuit which means that 2 injectors can't be driven at the same time on each High Side output so it's important to assign the firing points of each Injector carefully.



Example1: V10 Engine with Firing order - 1, 6, 5, 10, 2, 7, 3, 8, 4, 9

Best to Assign as below where the spacing between each Injector on one High side is 360 which is more than enough required injection time for a Direct injection engine.

HS1,2 - Injector 1 and 7
HS3,4 - Injector 6 and 3
HS5,6 - Injector 5 and 8
HS7,8 - Injector 10 and 4
HS9,10 - DI Pump1 & 2 as Default
HS11, 12 - - Injector 2 and 9

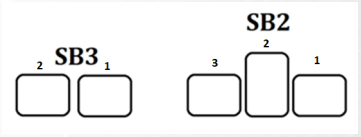
Example2: V6 Engine with Firing Order - 1, 2, 3, 4, 5, 6

HS1,2 - Injector 1 & 4
HS3,4 - Injector 2
HS5,6 - Injector 3
HS7,8 - Injector 5
HS9,10 - DI Pump1 & 2 as Default
HS11, 12 - Injector 6

Solder Links Settings

SB2 1-2 INJ3 LS on HS34 group, 2-3 INJ3 LS on HS123 group
SB3 1-2 INJ4 LS on HS34 group, 2-3 INJ4 LS on HS456 group
SB4 1-2 INJ3 flyback to VBAT, 2-3 INJ3 flyback to VBOOST
SB5 1-2 INJ4 flyback to VBAT, 2-3 INJ4 flyback to VBOOST

SB6 1-2 INJ9 LS on HS9A group, 2-3 INJ9 LS on HS789 group
SB19 1-2 INJ10 LS on HS9A group, 2-3 INJ10 LS on HS ABC group
SB20 1-2 INJ9 flyback to VBAT, 2-3 INJ9 flyback to VBOOST
SB21 1-2 INJ10 flyback to VBAT, 2-3 INJ10 flyback to VBOOST



Pinouts

Pin	Name	Notes
1	LS1	Injector Low Side Output 1
2	LS2	Injector Low Side Output 2
3	LS3	Injector Low Side Output 3
4	LS4	Injector Low Side Output 4
5	LS5	Injector Low Side Output 5
6	LS6	Injector Low Side Output 6
7	LS12	Injector Low Side Output 12
8	LS11	Injector Low Side Output 11
9	LS10	DI Pump2 Low Side Output / Injector Low Side Output 10
10	LS9	DI Pump1 Low Side Output / Injector Low Side Output 9
11	LS8	Injector Low Side Output 8
12	LS7	Injector Low Side Output 7
13	Input 1	Output 1 Input Signal (IGBT Signal Required as Default)
14	Input 2	Output 2 Input Signal (IGBT Signal Required as Default)
15	Input 3	Output 3 Input Signal (IGBT Signal Required as Default)
16	Input 4	Output 4 Input Signal (IGBT Signal Required as Default)
17	Input 5	Output 5 Input Signal (IGBT Signal Required as Default)
18	KLINE	Diagnostics for Internal Use
19	Input 11	Output 11 Input Signal (IGBT Signal Required as Default)
20	Input 10	Di Pump2 Input Signal / Output 10 Input Signal
21	Input 9	Di Pump1 Input Signal / Output 9 Input Signal
22	Input 8	Output 8 Input Signal (IGBT Signal Required as Default)
23	Input 7	Output 7 Input Signal (IGBT Signal Required as Default)
24	VBAT1	12V Supply for HS Outputs 1-6
25	HS1,2	High Side Injector + to Pair with Outputs 1,2 Low Side
26	PWRGND	Ground - Must be Connected
27	HS3,4	High Side Injector + to Pair with Outputs 3,4 Low Side
28	HS5,6	High Side Injector + to Pair with Outputs 5,6 Low Side
29	Input 6	Output 6 Input Signal (IGBT Signal Required as Default)
30	Input 12	Output 12 Input Signal (IGBT Signal Required as Default)
31	HS11,12	High Side Injector + to Pair with Outputs 11,12 Low Side
32	HS9,10	DI Pump2 High Side / High Side Injector + to Pair with Outputs 9,10 Low Side
33	PWRGND	Ground - Must be Connected
34	HS7,8	High Side Injector + to Pair with Outputs 7,8 Low Side
35	VBAT2	12V Supply for HS Outputs 7-12