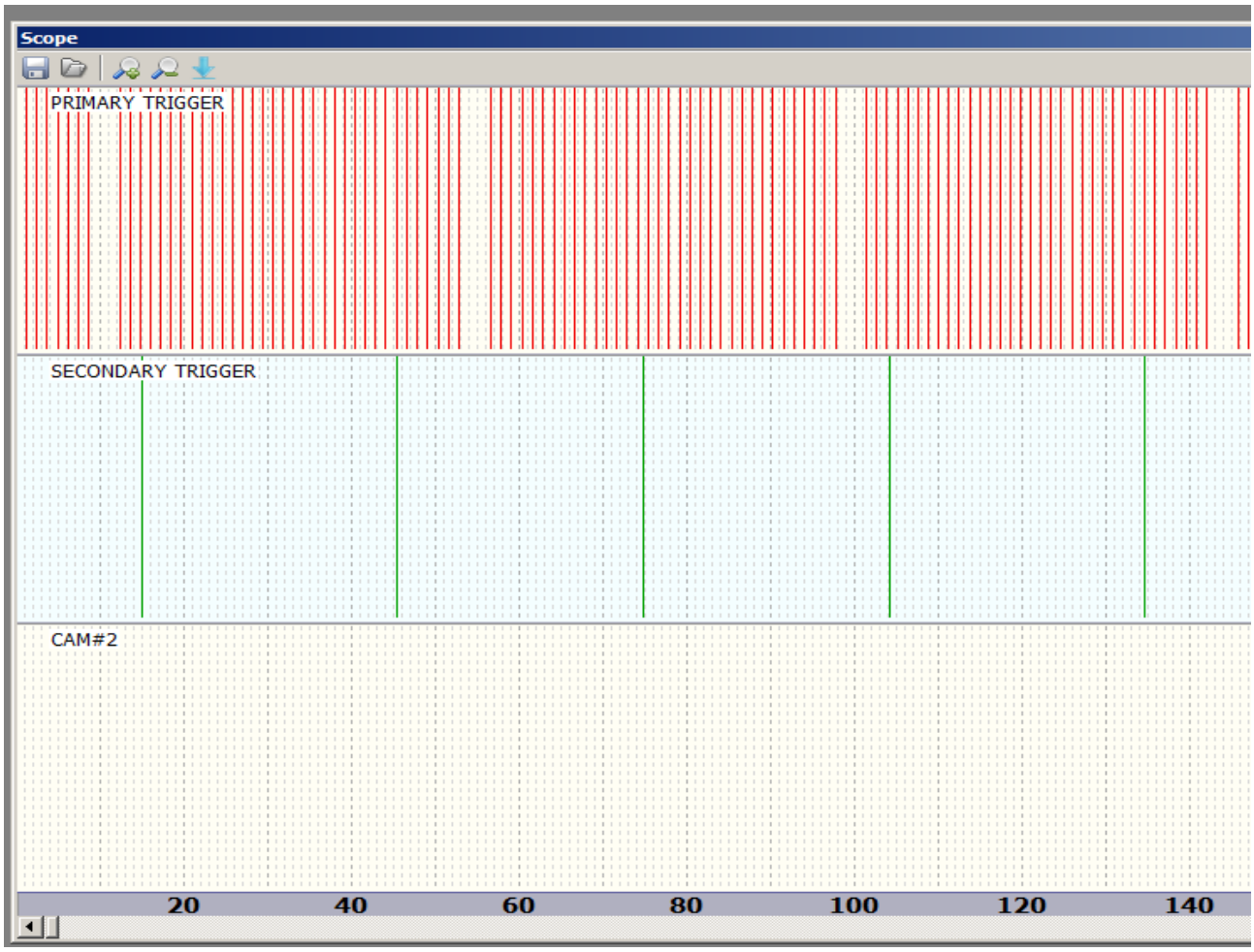
2JZGTE VVTi EMU Setup

This guide is for firmware version 1.29 or above.

Signal scope of correct trigger config

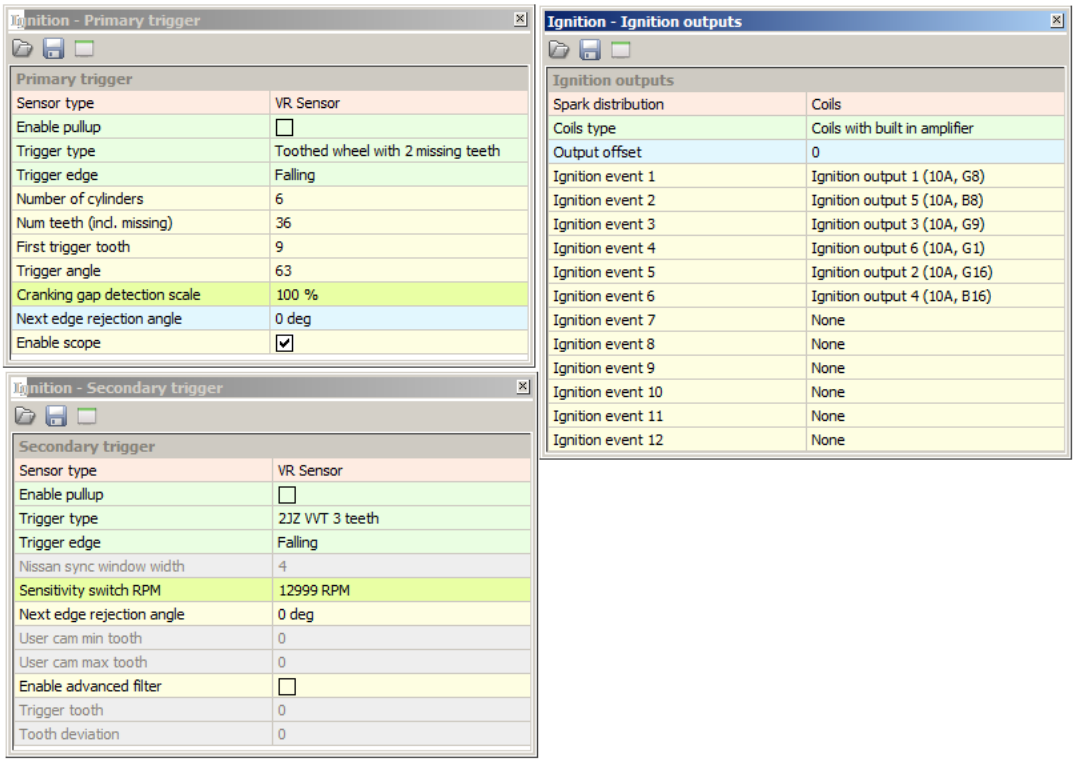


Trigger configuration (full seqential)

Firing order 1-5-3-6-2-4

Coils are connected in the follwing way:

Cylinder #	EMU Output	EMU Terminal
1	Ignition output #1	G8
2	Ignition output #2	B8
3	Ignition output #3	G9
4	Ignition output #4	G1
5	Ignition output #5	G16
6	Ignition output #6	B16



nition - Primary trigger

Primary trigger	
Sensor type	VR Sensor
Enable pullup	☐
Trigger type	Toothed wheel with 2 missing teeth
Trigger edge	Falling
Number of cylinders	6
Num teeth (incl. missing)	36
First trigger tooth	9
Trigger angle	63
Cranking gap detection scale	100 %
Next edge rejection angle	0 deg
Enable scope	☑

nition - Secondary trigger

Secondary trigger	
Sensor type	VR Sensor
Enable pullup	☐
Trigger type	2JZ VVT 3 teeth
Trigger edge	Falling
Nissan sync window width	4
Sensitivity switch RPM	12999 RPM
Next edge rejection angle	0 deg
User cam min tooth	0
User cam max tooth	0
Enable advanced filter	☐
Trigger tooth	0
Tooth deviation	0

Ignition - Ignition outputs

Ignition outputs	
Spark distribution	Coils
Coils type	Coils with built in amplifier
Output offset	0
Ignition event 1	Ignition output 1 (10A, G8)
Ignition event 2	Ignition output 5 (10A, B8)
Ignition event 3	Ignition output 3 (10A, G9)
Ignition event 4	Ignition output 6 (10A, G1)
Ignition event 5	Ignition output 2 (10A, G16)
Ignition event 6	Ignition output 4 (10A, B16)
Ignition event 7	None
Ignition event 8	None
Ignition event 9	None
Ignition event 10	None
Ignition event 11	None
Ignition event 12	None

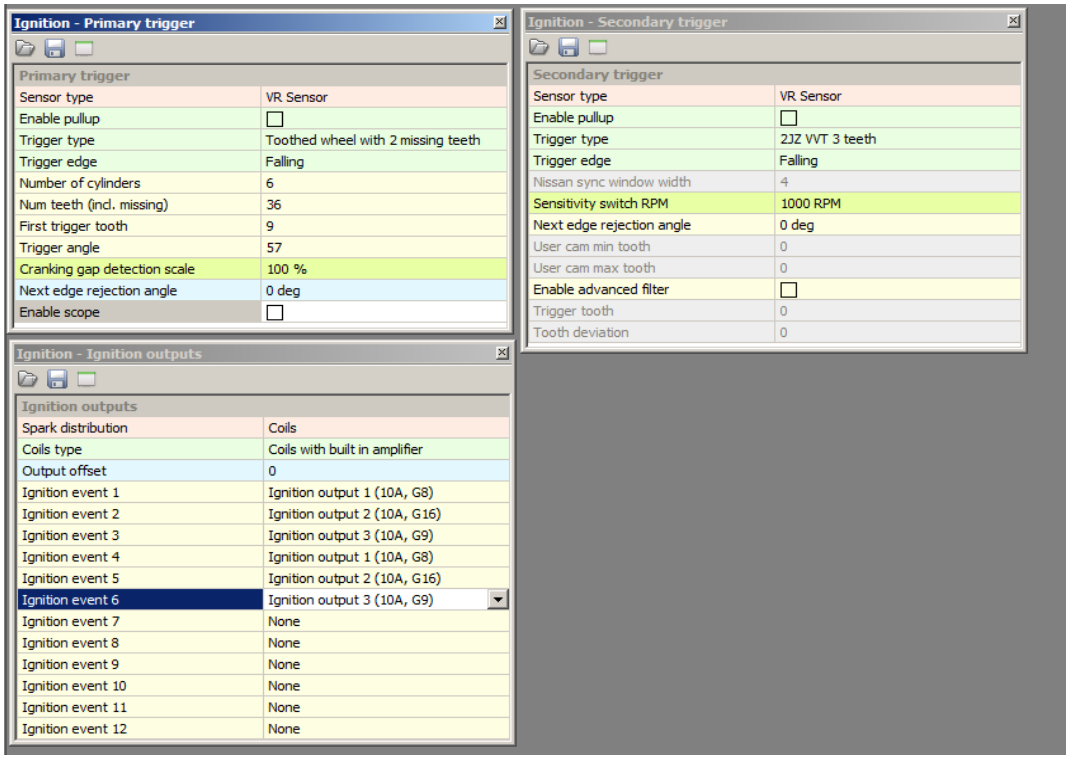
Trigger configuration (wasted spark)

Firing order 1-5-3-6-2-4

Cylinder pairs: 1-6, 5-2, 3-4

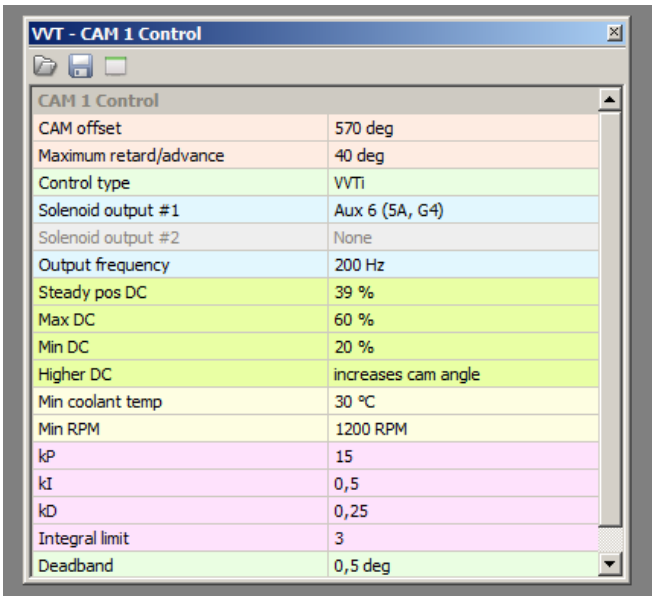
Coils are connected in the following way:

Cylinder #	EMU Output	EMU Terminal
1	Ignition output #1	G8
2	Ignition output #2	B8
3	Ignition output #3	G9
4	Ignition output #3	G1
5	Ignition output #2	G16
6	Ignition output #1	B16



VVTi configuration

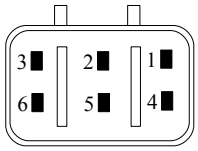
Flyback diode on VVTI solenoid is required!!!!



Please check on the log if the CAM#1 angle is 0 when there is 0 on the CAM #1 Angle 3D table.

Stepper motor

EMU PIN	STEPPER MOTOR
G2	1
+12V	2
G10	3
G3	4
+12V	5
G11	6



Idle valve type is Unipolar stepper. Thre frequency is 100Hz