3 Cyl

Orion2 ECU Layout

Wire Colors				Software Selectable						Software Selectable				Wire Colors		
			Sim	Pr 3	Priority2	Priority1				Priority1	Priority2	Pr 3	Sim			
	E24	E22	leds				P1 - 12 Way Input						leds	E22	E24	
	Green	Green					Water Temp	7	1	Air Temp				Yellow	Yellow	
	Red	Red					Lambda	8	2	TPS				Blue	Blue	
	Red	Red					.+5 Volt Out	9	3	MAP				Blue	Blue	
	Red	Red					.+12 Volt Ign	10	4	GND				Black	Black	
	N/C	Yellow					TDC Sensor	11	5	TDC Power				Blue	N/C	
	Blue	Green					Crank Sensor	12	6	Crank Power				Red	Red	
								Internal		3Bar Alt Sensor	Altitude Sensor	Map Sensor				
E33	E32	E31					P2 - 10 Way Output							E31	E32	E33
Black/Red	Black/Red	Black/Red	N5		Inj Drv 1	Basic Coil Drv 1	Coil Negative 1	6	1	Coil Negative 2	Basic Coil Drv 2	Inj Drv 2	N6	Black/Purple	N/C	Black/Purple
Black/Brown	N/C	Black/Brown	N7		Inj Drv 3	Basic Coil Drv 3	Coil Negative 3	7	2	Coil Negative 4			GP2	N8	Black/Orange	N/C	Black/Orange
Black/Yellow	Black/Yellow	Black/Yellow	N2	GP3	Cam 1	Inj Drv 2	Negative 2	8	3	Negative 1	Inj Drv 1	Cam 2	GP1	N1	Black/White	Black/White	Black/White
Green	Green	Green	RPM			RPM Out	Negative 4	9	4	Negative 3	Relay Out			Relay	Blue/Black	Blue	Blue
Blue/White	Blue/White	Blue/White	N4	GP5		Idle Valve	Negative 6	10	5	Negative 5	Inj Drv 3	Dual Idle	GP4	N3	Blue/Orange	Blue/Orange	Blue/Orange
		E36					P3 - 8 Way Output							E36		
		Red/White	P1	GP6	Idle Vlave	Smart Coil Drv 1 T	Positive 1	5	1	Positive 2	Smart Coil Drv 2 T	Dual Idle	Cam 2	P2	Red/Yellow		
		Red/Orange	P3	GP7	Cam 1	Smart Coil Drv 3 T	Positive 3	6	2	Positive 4	Micro Fuel		GP8	P4	Red/Green		
		Red					.+12 Volt In	7	3	.+12 Volt In					Red		
		White	GP1	GP9	Anti-Lag		Coil Negative 5	8	4	Coil Negative 6			GP10	GP2	Blue		
							P4 - 4 Way Serial									
							SDA	3	1	SCL						
							.+5 Volt Out	4	2	GND						
	P05-P3	USB					6 Way USB							USB	P05-P3	
	Green	N/C					Tuning Pot	4	1	Dual Map Sw				N/C	Yellow	
	Yellow	Yellow					Receive	5	2	Transmit				Green	Green	
	Red	Red					.+5 Volt Out	6	3	GND				Blue	Blue	

Note!! Coil and Injector numbers used here are firing phases from the ECU. It is not the firing order on your engine.
Refer to the drawings for Phase to firing order comparison.

Negative 1 to 6 = Negative drivers 41 Volt 19 Amp Drivers
Positive 1 to 4 = Positive Drivers 12 Volt 6 Amp current limit drivers
Coil Negative 1 to 6 = Negative Coil Drivers for Basic Coils 500 Volt 18 Amp Drivers
Tuning Pot and Coil Driver 6 share the same Micro Connection. Selection with Jumper J6 on board
Dual Map Switch and Coil Negative 5 share the same Micro Connection. Selection with Jumper J6 on board
An optional 3 Bar map sensor can be soldered onto board. It can be used as Altitude or MAP sensor. For an internal MAP sensor you need to make a hole in the lid for the pipe to come through.
Basic Coil = Coil without driver - 0.5 to 0.9 Ohm Primary winding - Charges with earth signal and discharges with open signal
Smart Coil = Coil with Built in driver - Charges with positive signal and discharges with earth signal which is provided by the driver and a pull down resistor
If you use the 3 Bar onboard sensor for MAP then you must use a 2.5 Bar external sensor for Altitude.

Coil Phaze	Fire Order Ex. 1 5 3 6 2 4
	Wasted Spark
Coil Drv 1	1 - 6
Coil Drv 2	5 - 2
Coil Drv 3	3 - 4

Inject Phaze	Fire Order Ex. 1 5 3 6 2 4
	Split Seq
Inj Drv 1	1 - 6
Inj Drv 2	5 - 2
Inj Drv 3	3 - 4