

						ZF 5HP19 5 Speed									
						Calisto TCU Layout									
	Wire Colors													Wire Colors	
			Sim leds	Priority2	Pin Names					Pin Names	Priority2	Sim leds			
	E72	E71						P1 - 12 Way Input					E71	E72	
		Yellow/Red			Low Range Input	Water Temp	7	1	Air Temp	Oil 10K			Yellow/Black	Yellow/Black	
	Yellow/Green	Yellow/Green			Shifter In	Lambda	8	2	TPS	TPS			Yellow	Yellow	
					Sensors Power	.+5 Volt Out	9	3	MAP	4 Map Select			Green Red		
	Orange	Orange			12V Ignition In	.+12 Volt Ign	10	4	GND	Battery -			Black	Black	
	Blue	Blue			Speed	Cam Sensor	11	5	CAM Power	Speed Sens +			Red	Red	
	Green	Green			RPM	Crank Sensor	12	6	Crank Power	RPM Sens +					
							Internal		1.15 Bar Alt Sensor						
		E62				P2 - 10 Way Output							E62		
		Black/Red	N1		EDS1 Line Pres	HV Negative 1	6	1	HV Negative 2	EDS4 Lockup Pres		N2	Black/Purple		
		Black/Brown	N3		EDS2 Shift Pres1	HV Negative 3	7	2	HV Negative 4	EDS3 Shift Pres2		N4	Black/Orange		
		Black/Yellow	N5		MV1 Shift Sol 1	HV Negative 5	8	3	HV Negative 6	MV2 Shift Sol 2		N6	Black/White		
		Green	RPM		Speed Out	LV Negative 2	9	4	LV Negative 1	Relay Out		Relay	Blue/Black		
		Blue/White	N7		MV3 Rev Lockout	HV Negative 7	10	5	HV Negative 8	GP1		N8	Blue/Orange		
						P4 - 4 Way Serial									
			Led1		N/C	HV Negative 9	3	1	HV Negative 10	N/C		Led2			
			P5		N/C	LV Positive 5	4	2	LV Positive 6	N/C		P6			
		E63				P3 - 8 Way Output							E63		
		Red/White	P1		Starter Lockout	LV Positive 1	5	1	LV Positive 2	Reverse Lights		P2	Red/Yellow		
		Red/Orange	P3		Lockup LED	LV Positive 3	6	2	LV Positive 4	N/C		P4	Red/Green		
		Red			Battery +	.+12 Volt In	7	3	.+12 Volt In	Battery +			Red		
		White	GP1		GP2	HV Negative 11	8	4	HV Negative 12	Retard		GP2	Blue		
OT21	OT20	USB				6 Way USB							USB	OT20	OT21
Green	Green	N/C		Up Switch	Overdrive	Tuning Pot	4	1	Dual Map Sw	Second Start	Down Switch		N/C	Yellow	Yellow
Yellow	Yellow	Yellow				Receive	5	2	Transmit				Green	Green	Green
Red	Red	Red				.+5 Volt Out	6	3	GND				Blue	Blue	Black

Note!! Coil an**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 di**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
Drivers not installed on PCB
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	Coil Phaze	Fire Order Ex. 1 5 3 6 2 4	
		Wasted Spark	
Coil Drv 1	Coil Drv 1	1 - 6	
Coil Drv 2	Coil Drv 2	5 - 2	
Coil Drv 3	Coil Drv 3	3 - 4	

Inject Phaze	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