

				ZF 5HP19 5 Speed										
Wire Colors			Software Selectable		Mercury2 TCU Layout					Software Selectable		Wire Colors		
		Sim leds	Priority2	Priority1						Priority1	Priority2	Sim leds		
MTSX01/2	MTWX01/2				P1 - 12 Way Input								MTWX01/2	MTSX01/2
Green	Green			Oil Temp 2K	Water Temp	7	1	Air Temp	Low Range				Yellow	Yellow
Blue	Blue			Shifter Switch	Lambda	8	2	TPS	TPS				Yellow	Blue
Red	Red				.+5 Volt Out	9	3	MAP					Blue	Blue
Orange	Orange				.+12 Volt Ign	10	4	GND					N/C	Black
Blue	Blue			Speed	TDC Sensor	11	5	Cam2 Sensor					N/C	N/C
Blue	Green			RPM	Crank Sensor	12	6	Cam1 Sensor					N/C	N/C
MTSX01/2	MTWX01/2				P2 - 10 Way Output								MTWX01/2	MTSX01/2
Red/Yellow	Red/Yellow	P2		Tiptronic LED	P2 12 Volt	6	1	P1 12 Volt	Lockup LED		P1	Red/White	Red/White	
Red/Green	Red/Green	P4		Overdrive LED	P4 12 Volt	7	2	P3 12 Volt	2nd Start LED		P3	Red/Orange	Red/Orange	
Red/Black	Red/Black	P6			P6 12 Volt	8	3	P5 12 Volt	Low Range LED		P5	Red/Blue	Red/Blue	
N/C	N/C	E Rel			Electronic Relay	9	4	Relay Out			Relay	Blue/Red	Blue/Red	
Red	Red				.+12 Volt In	10	5	.+12 Volt In				Red	Red	
MTSX01/2	MTWX01/2				P3 - 8 Way Output								MTWX01/2	MTSX01/2
Black/Red	Black/Red	N6		Retard	N6 Ground	5	1	N5 Ground	MV3 Rev Lockout		N5	Black/Purple	Black/Purple	
Black/Brown	Black/Brown	N4		EDS3 Shift Pres2	N4 Ground	6	2	N3 Ground	EDS2 Shift Pres1		N3	Black/Orange	Black/Orange	
Black/Yellow	Black/Yellow	N2		Lockup Pres EDS4	N2 Ground	7	3	N1 Ground	EDS1 Line Pres		N1	Black/White	Black/White	
Green	Green	RPM			RPM Out	8	4	GPN1 Ground	GP1		GP1	Blue/Orange	Blue/Orange	
MTSX01/2	MTWX01/2				P4 - 6 Way In/Output								MTWX01/2	MTSX01/2
Blue	Blue			4 Map Switch	Fuel Sensor	4	1	GPN2 Ground	GP2		GP2	Blue/White	Blue/White	
Red	Red	N7	Up Switch	Overdrive	POT	5	2	Altitude	Second Start	Down Switch	N8	Blue	Blue	
Red	Red				.+5 Volt Out	6	3	GND				Black	Black	
MTSX01/2	MTWX01/2				P5 - 4 Way Output								MTWX01/2	MTSX01/2
Blue	Blue			MV2 Shift Sol 2	N8 Ground	3	1	N7 Ground	MV1 Shift Sol 1			White	White	
Green	Green	P8		Reverse Lights	P8 12 Volt	4	2	P7 12 Volt	Starter Lockout		P7	Yellow	Yellow	
USB	USB				Comms - 6 Way USB/Firm								USB	USB
N/C	N/C				Programmer 2	4	1	Programmer 1				N/C	N/C	
Yellow	Yellow				Receive	5	2	Transmit				Green	Green	
Red	Red				.+5 Volt Out	6	3	GND				Blue	Blue	

Firmware Program
Mercury2 TCU Advance 29 ZF 5HP19 Ver 3.3D
Firmware Class Advance
2 GP output available
Only 2K oil temperature sensor selection is allowed.
When overdrive or second start is selected then the tiptronic buttons will be disabled and there functions changed to these functions.
Low range, Overdrive and Second Start could be used with different map selections without connections to the tranny or buttons.

Shifter	Gear allowed	Engine Break	
P	1		
R	1		
N	1		
D	1,2,3,4,5		
4	1,2,3,4		
3	1,2,3		
2	1,2		