

ZF 4HP22 24 4 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 Lockup Pres		N5	Black/Purple	Black/Purple
Black/Brown	Black/Brown	N4		MV5 Line Pres	N4 Ground	6	2	N3 Ground	MV4 Reverse Lockout		N3	Black/Orange	Black/Orange
Black/Yellow	Black/Yellow	N2		MV2 Shift2	N2 Ground	7	3	N1 Ground	MV1 Shift 1		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				N8 Ground	3	1	N7 Ground	Starter Lockout			White	White
Green	Green	P8		Reverse Lights	P8 12 Volt	4	2	P7 12 Volt			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 ZF4HP20 24 Ver 3.3B
Reverse lockout is only on the 5 solenoid model.
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	3,4	
3	1,2,3	2,3	
2	1,2	1,2	
1	1	1	