

Aisin A650E 5 Speed													
Wire Colors		Sim leds	Software Selectable		Mercury2 TCU Layout				Software Selectable		Wire Colors		
			Priority2	Priority1					Priority1	Priority2	Sim leds		
MTSX01/2	MTWX01/2				P1 - 12 Way Input							MTWX01/2	MTSX01/2
Green	Green			Low Range	Water Temp	7	1	Air Temp	Oil Temp 10K			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		Shift 2	P2 12 Volt	6	1	P1 12 Volt	Shift 1		P1	Red/White	Red/White
Red/Green	Red/Green	P4		Shift 4	P4 12 Volt	7	2	P3 12 Volt	Shift 3		P3	Red/Orange	Red/Orange
Red/Black	Red/Black	P6		Overdrive LED	P6 12 Volt	8	3	P5 12 Volt	2nd Start 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		Tiptronic LED	N6 Ground	5	1	N5 Ground	Lockup LED		N5	Black/Purple	Black/Purple
Black/Brown	Black/Brown	N4		Retard	N4 Ground	6	2	N3 Ground	SLN Shift Press		N3	Black/Orange	Black/Orange
Black/Yellow	Black/Yellow	N2		SLU Lockup Press	N2 Ground	7	3	N1 Ground	SLT Line Press		N1	Black/White	Black/White
Green	Green	RPM		Speedometer	RPM Out	8	4	GP1 Out	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	GP2 Out	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	Low Range LED		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 Intermediate 02 Lexus A650E Ver 3.3A
Firmware Class Intermediate
2 GP output available.
Only 10K 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		3,4,5
2	1,2,3		2,3
1	1,2		1,2

Note that engine break in 2nd depends of pressure setting of the Sol 2 Yellow graph