

Aisin A650E 5 Speed

Wire Colors		Software Selectable		Mercury3 TCU Layout				Software Selectable			Wire Colors		
		Sim leds	Priority2	Priority1					Priority1	Priority2	Sim leds		
M70-P1	M71-P1				P1 - 12 Way Input							M71-P1	M70-P1
Yellow/Red	Yellow/Red			Low Range	Water Temp	7	1	Air Temp	Oil Temp 10K			Yellow/Black	Yellow/Black
Yellow/Green	Yellow/Green			Shifter Switch	Lambda	8	2	TPS	TPS			Yellow	Yellow
Red	Red				.+5 Volt Out	9	3	MAP				N/C	N/C
Orange	Orange				.+12 Volt Ign	10	4	GND				Black	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
					P2 - 10 Way Output							M72-P2 / M68-P2	
	M72-P2 / M68-P2				P2 12 Volt	6	1	P1 12 Volt	Shift 1		P1	Red/White	
	Red/Yellow	P2		Shift 2	P4 12 Volt	7	2	P3 12 Volt	Shift 3		P3	Red/Orange	
	Red/Green	P4		Shift 4	P6 12 Volt	8	3	P5 12 Volt	2nd Start LED		P5	Red/Blue	
	Red/Black	P6		Overdrive LED	Electronic Relay	9	4	Relay Out			Relay	Blue/Red	
	N/C	E Rel			.+12 Volt In	10	5	.+12 Volt In				Red	
	Red				P3 - 8 Way Output							M73-P3	
	M73-P3				N6 Ground	5	1	N5 Ground	Lockup LED		N5	Black/Purple	
	Black/Red	N6		Tiptronic LED	N4 Ground	6	2	N3 Ground	SLN Shift Press		N3	Black/Orange	
	Black/Brown	N4		Retard	N2 Ground	7	3	N1 Ground	SLT Line Press		N1	Black/White	
	Black/Yellow	N2		SLU Lockup Press	RPM Out	8	4	GP1 Out	GP1		GP1	Blue/Orange	
	Green	RPM		Speedometer	P4 - 6 Way In/Output							M74-P4	
	M74-P4				Fuel Sensor	4	1	GP2 Out	GP2		GP2	Blue/White	
	Brown			4 Map Switch	POT	5	2	Altitude	Second Start	Down Switch	N8	Purple	
	Green/Yellow	N7	Up Switch	Overdrive	.+5 Volt Out	6	3	GND				Black	
	Red				P5 - 4 Way Output							M75-P5	
	M75-P5				N8 Ground	3	1	N7 Ground	Starter Lockout			Blue/Grey	
	Blue/Red				P8 12 Volt	4	2	P7 12 Volt	Low Range LED		P7	Red/Blue	
	Red/Black	P8		Reverse Lights	Comms - 6 Way USB/Firm							USB	
	USB				Programmer 2	4	1	Programmer 1				N/C	
	N/C				Receive	5	2	Transmit				Green	
	Yellow				.+5 Volt Out	6	3	GND				Blue	
	Red												

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