

20 Pin Conector Pin#	Function	Speeduino	NOTES	MAZDA ECU Pin #	NOTES	Wire Color
1	Batery IGN Switched	RED	12v Key on from Stock ECU	97		White
2	Injector 3			NOT USED		NOT USED
3	Injector 4			NOT USED		NOT USED
4	Idle 1			NOT USED		NOT USED
5	Boost Solenoid			NOT USED		NOT USED
6	VSS			NOT USED		NOT USED
7	Cam VR2-		TAP INTO WIRE	86		GREEN
8	Crankshaft VR1 +		TAP INTO WIRE	21		YELLOW
9	5v			NOT USED		NOT USED
10	5v			NOT USED		NOT USED
11	Fuel Injector 1	Yellow/Red	CUT & WIRE TO SENSOR SIDE	75 (inj 1) & 100 (inj 4)	BLACK/RED & GREEN/BLACK	
12	Fuel Injector 2	Purple/Red	CUT & WIRE TO SENSOR SIDE	74 (inj 3) & 101 (inj 2)	BLUE/ORANGE & BLACK/YELLOW	
13	HC2			NOT USED		NOT USED
14	HC1			NOT USED		NOT USED
15	Flex Fuel Sensor			NOT USED		
16	Crankshaft VR1-		TAP INTO WIRE	22		ORANGE/BLACK
17	Cam input VR2+		TAP INTO WIRE	85		BLUE
18	GROUND	Black/White	VR ground (optional)			
19	GROUND	Black/White	Ground To Engine Block or Use ECU Ground Pin	24		
20	GROUND	Black	Ground To Engine Block or Use ECU Ground Pin	51		
24 Pin Conector Pin #						
1	Ignition 1	Red/Black	CUT & WIRE TO SENSOR SIDE	26		RED
2	Ignition 3			NOT USED		NOT USED
3	Stepper A2 Output		TAP INTO WIRE	85		BLUE
4	Stepper B1 Output		TAP INTO WIRE	21		YELLOW
5	IAT input	Black/Yellow	Run to GM sensor			
6	Coolant Temp Sensor Input	Brown/Black	Run to GM sensor			
7	Wideband O2	Green/White	0-5v input from Wideband O2			
8	Aux Analog input 2			NOT USED		NOT USED
9	Fuel Pump Relay Control	Pink/Green	CUT & WIRE TO SENSOR SIDE	80	DEFAULT PRIME 6s	VIOLET
10	Spare Low Current output 3			NOT USED		NOT USED
11	Spare Low Current output 1			NOT USED		NOT USED
12	Sensor Ground	Black/White	Ground from New Coolant and IAT Sensors	Run ground from clt and lat sensros here		
13	Ignition 2	White/Red	CUT & WIRE TO SENSOR SIDE	52		WHITE
14	Ignition 4			NOT USED		NOT USED
15	Stepper A1 Output			NOT USED		NOT USED
16	Stepper B2 Output		TAP INTO WIRE	83	FREQUENCY 56HZ	GREY
17	External Map Sensor			NOT USED		NOT USED
18	Throttle Position Sensor	Brown/White	TAP INTO WIRE	89		BROWN/YELLOW
19	Aux analog input 1			NOT USED		NOT USED
20	Clutch Switch			NOT USED		NOT USED
21	Fan			NOT USED		NOT USED
22	Tachometer Output			NOT USED		NOT USED
23	Spare low current output 2			NOT USED		NOT USED
24	Ground	Black/White	Ground To Engine Block or Use ECU Ground Pin	76		

ECU Ground Pins: 24,51,76,77,103

Batch injection mode

Batch injection mode

Cut from stock ECU	Tap into ecu signal	New sensors	Not used	Ground or Sensor Ground
Wire to Sensor side to Speeduino				