

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	Fuel Injector 3		CUT & WIRE TO SENSOR SIDE		100 (inj 4)		
3	Fuel Injector 4		CUT & WIRE TO SENSOR SIDE		101 (inj 2)		
4	Idle 1 PWM IDLE		Optional, I am currently using the stock ECU for Idle control with success		83		NOT USED
5	Boost Solenoid				NOT USED		NOT USED
6	VSS				NOT USED		NOT USED
7	G 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)		
12	Fuel Injector 2	Purple/Red	CUT & WIRE TO SENSOR SIDE		74 (inj 3)		
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	L 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 Connector 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	White Blue	Exrta		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 cjt and iat 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	purple			NOT USED		NOT USED
20	Clutch Switch				NOT USED		NOT USED
21	Fan	Red/White	Optional		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

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