

## Sheet1

Name	Color	In/Out	Function	Max amps	Note
Main 1 GND	Black	GND	Crank sensor ground		
2 GND		GND	Crank sensor shield		
3 SPR1	Tan	(Comms)	(CANH)		
4 SPR2	Tan/Red	(Comms)	(CANL)		
5 SPR3	Tan/Green		spare		
6 SPR4	Tan/Orange		spare		
7 GND	Black/White	GND	Sensor ground		
8 GND		GND	spare GND		
9 GND		GND	spare GND		
10 GND		GND	spare GND		
11 GND		GND	spare GND		
12 GND		GND	spare GND		
13 GND		GND	spare GND		
14 GND		GND	spare GND		
15 GND	Black	GND	POWER GROUND		
16 GND	Black	GND	POWER GROUND		
17 GND	Black	GND	POWER GROUND		
18 GND	Black	GND	POWER GROUND		
19 GND	Black	GND	POWER GROUND		
20 MAT	Orange	In	MAT sensor input		
21 CLT	Yellow	In	CLT sensor input		
22 TPS	Light Blue	In	TP Sensor input		
23 O2	Pink	In	Oxygen/lambda sensor in		
24 Tach In	White in shield wire	In	Crank Tach input		
25 IAC1A	Blue/White	(Out)	(IAC1A)	0.5A	
26 TPSVREF 5v	Gray	Out	5v supply for TPS	0.1A	
27 IAC1B	Blue/Red	(Out)	(IAC1B)	0.5A	
28 +12v In	Red	In	Main power feed	< 1A	Miata Black/White
29 IAC2A	Green/White	(Out)	(IAC2A)	0.5A	
30 FIDLE	Light Green	Out	Idle valve output	0.1A	
31 IAC2B	Green/Red	(Out)	(IAC2B)	0.5A	
32 INJ1	Blue	Out	Injector bank 1 output	7A	
33 INJ1	Blue	Out	Injector bank 1 output	7A	
34 INJ2	Green	Out	Injector bank 2 output	7A	
35 INJ2	Green	Out	Injector bank 2 output	7A	
36 IGN	Brown	(Out)	(High current ignition)	7A	
37 FP (Pump)	Violet	Out	Fuel pump relay output	0.1A	
MS3x 1 Inj G	White/Dark Blue	Out	Injector G output	5A	
2 GND	Black	GND	POWER GROUND		
3 GND	Black	GND	POWER GROUND		
4 Inj F	White/Dark Green	Out	Injector F output	5A	Big Fan
5 Flex	Orange	In	Flex fuel		
6 Boost	Light Green/Red	Out	Mid-current output	3A	
7 Inj E	White/Red	Out	Injector E output	5A	
8 GND	Black	GND	POWER GROUND		
9 Idle	Light Green/Pink	Out	Mid-current output	3A	Main Relay
10 Inj D	White/Pink	Out	Injector D output	5A	Injector 2

## Sheet1

11 Launch In	Gray/Red	In	Ground-switch input		
12 GND	Black	GND	POWER GROUND		
13 Inj C	White/Light Green	Out	Injector C output	5A	Injector 4
14 Spark A	Yellow	Out	0-5V logic spark A output	0.03A	Coil 1
15 Spark C	Yellow/Light Green	Out	0-5V logic spark C output	0.03A	Coil 4
16 Inj B	White/Orange	Out	Injector B output	5A	Injector 3
17 GND	Black	GND	POWER GROUND		
18 Spark G	Yellow/Dark Blue	Out	0-5V logic spark output	0.03A	
19 Inj A	White	Out	Injector A output	5A	Injector 1
20 Inj H	White/Purple	Out	Injector H output	5A	
21 Spare ADC	Light Blue	In	0-5V analog input		
22 EGO2	Light Blue/Dark Blue	In	0-5V analog input		
23 EXT MAP	Light Blue/Red	In	0-5V analog input		
24 Nitrous 1	Light Green	Out	Mid-current output	3A	vtec
25 Nitrous 2	Light Green/Dark Blue	Out	Mid-current output	3A	
26 Tacho	Light Green/Orange	Out	Mid-current output	3A	
27 VVT	Light Green/Dark Green	Out	Mid-current output	3A	
28 Tableswitch In	Gray/Purple	In	Ground-switch input		
29 Nitrous In	Gray/Dark Blue	In	+12V switch input		
30 Datalog In	Gray	In	Ground-switch input		
31 PT4	Purple	In/Out	0/5V input or output	0.02A	
32 Cam Input	Dark Green	In	'Cam' Tach input		
33 Spark B	Yellow/Orange	Out	0-5V logic spark B output	0.03A	Coil 3
34 Spark D	Yellow/Pink	Out	0-5V logic spark D output	0.03A	Coil 2
35 Spark E	Yellow/Red	Out	0-5V logic spark E output	0.03A	
36 Spark F	Yellow/Dark Green	Out	0-5V logic spark F output	0.03A	
37 Spark H	Yellow/Purple	Out	0-5V logic spark H output	0.03A	

## Sheet2

Engine Connector	Engine Wire	Description	Miata Wire	MS Wire	Note
<b>Ignition Coil 1</b>					
1	Yellow/Green	Signal		MS3X Yellow	
2	Black	Ground			Engine Ground
3	Black/White	Ignition	*Black/White		
<b>Ignition Coil 2</b>					
1	Blue/Red	Signal		MS3X Yellow/Pink	
2	Black	Ground			Engine Ground
3	Black/White	Ignition	*Black/White		
<b>Ignition Coil 3</b>					
1	White/Blue	Signal		MS3X Yellow/Orange	
2	Black	Ground			Engine Ground
3	Black/White	Ignition	*Black/White		
<b>Ignition Coil 4</b>					
1	Brown	Signal		MS3X Yellow/Light Green	
2	Black	Ground			Engine Ground
3	Black/White	Ignition	*Black/White		
<b>Injector 1</b>					
1	Red	Ignition	White/Blue		
2	Black	Signal		MS3X White	
<b>Injector 2</b>					
1	Red	Ignition	White/Blue		
2	Black	Signal		MS3X White/Pink	
<b>Injector 3</b>					
1	Red	Ignition	White/Blue		
2	Black	Signal		MS3X White/Orange	
<b>Injector 4</b>					
1	Red	Ignition	White/Blue		
2	Black	Signal		MS3X White/Light Green	
<b>CMP Sensor A Intake</b>					
1	Blue/White	Signal		MS3X Gray	Datalog In PT6
2	Brown/Yellow	Ground		Main Pin1 Black	
3	Black/Yellow	Ignition	White/Red		
<b>CMP Sensor B Exhaust</b>					
1	Green	Signal		MS3X Dark Green	Cam In
2	Brown/Yellow	Ground		Main Pin1 Black	
3	Yellow/Black	Ignition	White/Red		
<b>CKP Sensor</b>					
1	Blue	Signal		Main White in shield wire	Crank Tach input
2	Brown/Yellow	Ground		Main Pin1 Black	
3	Yellow/Black	Ignition	White/Red		
<b>IAT Sensor</b>					
4	Green/Black	Signal Ground		Main Black/White	GM Sensor
5	Red/Yellow	Signal		Main Orange	
<b>ECT Sensor</b>					
1	Red White	Signal		Main Yellow	32F 6430 86F 1575
2	Green/Black	Signal Ground		Main Black/White	206F 168
<b>TPS</b>					
	Red/Green	Vref		Main Gray	old map sensor

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IACV	Yellow/Red	Signal Ground		Main Black/White	pig tail
	Green/White	Signal		Main Light Blue	
Knock	Black	Signal A		Main Blue	Inj Bank 1
	White	Ignition	*Black/White		
	Red	Ground			
Dash ECT Sensor	Red/Blue	Signal		Main Tan/Green	SPR3
	Black	Signal	Violet/White		
	Yellow	n/a			
Alternator	Purple	n/a			
	Black	Battery	Main Fuse		
B	Black	Battery	Main Fuse		
IG	Black/Yellow	Ignition	*Black/White		
L	White/Blue	Warning Lamp	Brown/Red		
FR	White/Red	Field Return	n/a		
C	White/Green	Charge Control		MS3X Light Green/Dark Blue	Nitrous2
Fuel Pump Relay		Signal	Red/White	Main Violet	
		Power	White/Blue		
Oil Pressure SW					
	Yellow/Red				sw to ground
VSS A			Orange		
VSS B			Yellow		
Reverse SW					
	Black	Ignition	Black/Yellow		BMW
Red	Reverse Lamp	Red/Yellow			
Coolant Fan					
		Signal	Red/Yellow	MS3X White/Red	Inj E
	Power	White/Red			
Condenser Fan					
		Signal	Blue/White	MS3X Blue/White	Inj F
	Power	White/Red			
Boost Solenoid					
	Black	Signal		MS3X Light Green/Red	Boost
Black	Power	White/Red			
MAT					
	Yellow			Main Orange	
CLT					
	Black			Main Black/White	
Clutch Pedal					
				Main Yellow	
Clutch Pedal					
				MS3X Gray/Red	Launch

## Sheet2

Brake Pedal

Green

MS3X Gray/Dark Blue

Nitrous Input

Main Relay

Green/Red?

Light Green/Pink

Idle

Note: \*Black/White wires have been connected to White/Blue in order to dedicate the ignition switch to ECU power

### Sheet3

Engine Connector	Engine Wire	Description	HSD4 Output	HSD4 Input	MS Wire	Note
VTC Oil Solenoid						
1	Black	Ground				Engine Ground
2	Blue/White	Signal	White	Yellow	MS3X Light Green/Dark Gre	VVT
Rocker Arm Oil Solenoid						
1	Black	Ground				Engine Ground
2	Green/Yellow	Signal	Pink	Orange	MS3X Light Green	Nitrous1

All HSD4 (High Side Driver module) red wires are powered from white/red