



Delta 880 - ECU Pinout

Connector A: AMPSeal 776164-1

Connector B: AMPSeal 776163-4

Terminal Pins 770520-3

PC Connector: Female DB9 or DTM

Connector A			
Pin	Name	Description	Notes
1	Battery	Direct Battery Supply (15A fuse)	Direct Battery Power 6-15V
2	Ignition	Ignition Switched Supply (10A fuse)	Ignition Key Input
3	Power Ground 1	Power Ground	Power Ground
4	Low Side Output 1	3A Open Collector	Injector 1
5	Low Side Output 2	3A Open Collector	Injector 2
6	Low Side Output 3	3A Open Collector	Injector 3
7	Low Side Output 4	3A Open Collector	Injector 4
8	Crank/Cam Ground	Digital Ground	Crank/Cam Sensor Ground
9	Crank Input	VR/Hall - Software Selectable	Crank Sensor Input
10	Cam Input 1	VR/Hall - Software Selectable	Inlet Cam Sensor 1 Input
11	NTC Input 1	3.16K pull-up to VREF	Coolant Temp Input
12	NTC Input 2	3.16K pull-up to VREF	Air Temp Input
13	Ignition 1	TTL/Power Ignition Output	Ignition 1
14	Ignition 2	TTL/Power Ignition Output	Ignition 2
15	Ignition 3	TTL/Power Ignition Output	Ignition 3
16	Ignition 4	TTL/Power Ignition Output	Ignition 4
17	Analog Input 1	47k pull-up to VREF	Gear Position Sensor
18	Cam Input 2	VR/Hall - Software Selectable	Cam 2 / Wheel Speed
19	Analog Ground 1	Analog Ground	Analog Ground
20	Lambda 1 Input	Weak bias to 450mV	0-5V Analog Input
21	CAN 1H	120 Ohm Terminated	To PC comms DB9
22	CAN 1L		To PC comms DB9
23	Low Side Output 5	3A Open Collector	MFIO Injector 5 and Lambda 3 Input
24	Low Side Output 7	3A Open Collector w/ recirc diode	Main Relay/PWM1
25	Low Side Output 8	3A Open Collector w/ recirc diode	Fuel Pump Relay/PWM2
26	Low Side Output 9	3A Open Collector w/ recirc diode	PWM3
27	Low Side Output 10	3A Open Collector w/ recirc diode	PWM4
28	Low Side Output 11	3A Open Collector with pull-up to VB	Tacho Output
29	Low Side Output 6	3A Open Collector	MFIO Injector 6 and Lambda 4 Input
30	Analog Ground 2	Analog Ground	Analog Ground
31	NTC Input 3	3.16K pull-up to VREF	NTC1
32	Analog Input 2	47k pull-up to VREF	TPS1
33	Analog Input 3	47k pull-up to VREF	MAP
34	VREF	500mA 5V supply to sensors	5V Reference
35	Power Ground 2	Power Ground	Power Ground 2

Connector B			
Pin	Name	Description	Notes
B1	H Bridge 1 M+	5A H-Bridge	Throttle 1 +
B2	H Bridge 1 M-	5A H-Bridge	Throttle 1 -
B3	H Bridge 2 M+	5A H-Bridge	Throttle 2 +
B4	H Bridge 2 M-	5A H-Bridge	Throttle 2 -
B5	Bipolar Output 1	3A Hi Side/Lo Side Drive	PWM5
B6	Bipolar Output 2	3A Hi Side/Lo Side Drive	PWM6
B7	Bipolar Output 3	3A Hi Side/Lo Side Drive	PWM7
B8	Bipolar Output 4	3A Hi Side/Lo Side Drive	PWM8
B9	Low Side Output 12	3A Open Collector	User Configurable Output
B10	Low Side Output 13	3A Open Collector	Gear Shift Air Pressure Relay
B11	Cam Input 3	VR/Hall - Software Selectable	Cam 3
B12	Cam Input 4	VR/Hall - Software Selectable	Cam 4
B13	Ignition 5	TTL/Power	Short circuit protection for Power
B14	Ignition 6	TTL/Power	Short circuit protection for Power
B15	Ignition 7	TTL/Power	Gear Up Solenoid Output
B16	Ignition 8	TTL/Power	Gear Down Solenoid Output
B17	Hall Input 1	Hall Effect Input	Wheel Speed LR
B18	Hall Input 2	Hall Effect Input	Wheel Speed RR
B19	Hall Input 3	Hall Effect Input	Wheel Speed LF
B20	Hall Input 4	Hall Effect Input	Wheel Speed RF
B21	Knock 1 +		
B22	Knock 2 +		
B23	Knock Ground	Digital Ground	
B24	Lambda 2 Input	Weak bias to 450mV	Lambda 2
B25	Analog Input 4	47k pull-up to VREF	TPS2
B26	Analog Input 5	47k pull-up to VREF	PPS1
B27	Analog Input 6	47k pull-up to VREF	PPS2
B28	NTC Input 4	3.16k pull-up to VREF	Gear Up Paddle Input
B29	NTC Input 5	3.16k pull-up to VREF	Gear Down Paddle Input
B30	Analog Input 7	47k pull-up to VREF	Oil Pressure Sensor Input
B31	Analog Input 8	47k pull-up to VREF	Clutch Switch Input
B32	Analog Input 9	47k pull-up to VREF	Neutral Switch Input
B33	Analog Input 10	47k pull-up to VREF	Gear Shift Air Pressure Sensor
B34	CAN 2L	120 Ohm Terminated	
B35	CAN 2H		

PC Comms DB9 Female Connector	
Pin	Name
1	Ground
6	CAN High
7	CAN Low
8	Battery Voltage
DTM Connector	
1	Battery Voltage
2	Ground
3	CAN High
4	CAN Low