

## NBB Parallel install

Summary:		
Adaptronic controls all performance features		
Stock computer controls: Emissions, immobilizer, main relay switching, alternator, transmission interaction, OBD II link is still active		
Sequential Injection Controlled	Default is low impedance	Can be converted using resistors
Wasted Spark Ignition		
Ign1	Cylinders 2 & 3	
Ign2	Cylinders 1 & 4	
Ign 3	Tachometer output	
<b>Aux out</b>		
1 high current pulse width modulation channel (PWM)	Idle Air Control Valve	
2 high current PWM	Unused	
3 high current PWM	Variable Valve Timing	
4 high current output (no PWM)	Unused	
5 low current output	Fuel Pump	
6 low current output	Radiator fan	
7 low current output	Air Conditioning fan	To make fans run in parallel without AC on
8 low current output	Air Conditioning relay	To stipulate when A/C turns on.
<b>Inputs</b>		
MVSS (Vehicle Speed Sensor)	Connected	For boost limiting per gear, and launch control
SVSS (Vehicle Speed Sensor)	Nothing to connect to	For launch control and traction control
Reluctor Input 1	Crank signal	
Reluctor Input 2	Cam signal	
Reluctor Input 3	Nothing to connect to	
Digital Input 1	Clutch interrupt switch	
Digital Input 2	Neutral interrupt Switch	
Digital Input 3	PSP	
Digital Input 4	Air conditioning request	
Digital Input 5	Nothing	
Digital Input 6	Nothing	
Digital Input 7	Nothing	
Digital Input 8	Nothing	
Throttle Position Sensor (TPS)	Connected	
Manifold Absolute Pressure (MAP) signal routed through Mass Air Flow Sensor (MAF)	Connected	
Water Temperature (WT)	Connected	
Knock Sensor	Connected	
Intake Air Temperature sensor (IAT)	Connected	
Exhaust gas oxygen narrow band (EGO)	Connected	

### Stock ECU control/inputs

EGR 1-5	
Purge V	
Purge S	
Alternator	
Heat 1	
Evap 1	
Diag 1	
Immobilizer	
GenDash	
Fuel Tank	
EVAP 2	
EGO 1&2	
Knock Sensor	
ACReq	
Neutral	
Clutch	
VTCSsw	
VTCScon	
Main Relay	
Cam sensor	
Crank sensor	
Brake	
Mass Air Flow (MAF) Water Temperature (WT) Intake Air Temperature (IAT)	These are connected together using resistors to simulate conditions.

## NB Parallel install

Summary:		
Adaptronic controls all performance features		
Stock computer controls: Emissions, Immobilizer, Main Relay Switching, Alternator, Transmission interaction, O.B.D. II link is still active		
Sequential Injection Controlled	Default is low impedance	Can be converted using resistors
Wasted Spark Ignition		
Ign1	2 & 3	
Ign2	1 & 4	
Ign 3	Tacho output	
<b>Auxiliary outputs (can control any function but these are wired in the PNP looms)</b>		
1 high current pulse width modulation channel (PWM)	Idle Air Control Valve	
2 high current PWM	Variable Inertial Charge System (VICs)	
3 high current PWM	Exhaust Gas Recirculation (EGR) Boost	
4 high current output (no PWM)	Purge Valve	
5 low current output	Fuel Pump (FP)	
6 low current output	Radiator fan	
7 low current output	Air Conditioning fan	To make fans run in parallel without AC on
8 low current output	Air Conditioning relay	To stipulate when A/C turns on.
<b>Inputs</b>		
MVSS (Vehicle Speed Sensor)	Connected	For boost limiting per gear, and launch control
SVSS (Vehicle Speed Sensor)	Nothing to connect to	For launch control and traction control
Reluctor Input 1	Crank	
Reluctor Input 2	Camshaft	
Reluctor Input 3	Nothing to connect to	
Digital Input 1	Clutch	
Digital Input 2	Neutral Switch	
Digital Input 3	PSP	
Digital Input 4	AC request	
Digital Input 5	Nothing	
Digital Input 6	Nothing	
Digital Input 7	Nothing	
Digital Input 8	Nothing	
Throttle Position Sensor (TPS)	Connected	
Manifold Absolute Pressure (MAP) signal routed through Mass Air Flow Sensor (MAF)	Connected	
Water Temperature (WT)	Connected	
Knock Sensor	Connected	
Intake Air Temperature sensor (IAT)	Connected	
Exhaust gas oxygen narrow band (EGO)	Connected	
External Input Boost (EGR) sensor	Connected	

### Stock ECU control/inputs

Pwr	
Ign switch pwr	
NC	
Data link 1	
Check engine lamp non functional	
Brake switch	
PSP	
Ignition Relay	
Transmission 1	
Data link 2	
Charging 1,2,&3	
Neutral switch	
FTP	
EGO front signal	
VSS	
Knock Sensor	
EGR valve 1 in 1 - 2 in 2	
NC	
EGR boost sensor	
CDCV	
EGO Rear gnd	
Mass Air Flow (MAF) Water Temperature (WT) Intake Air Temperature (IAT)	These are connected together using resistors to simulate conditions.