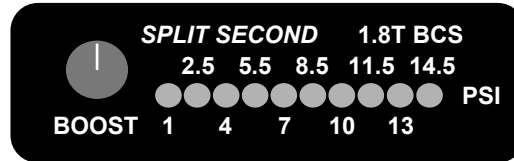




1.8T Boost Control System



Gen 4

Description:

The 1.8T BCS (Boost Control System) is designed to work with all throttle-by-wire Audi and Volkswagen 1.8T engines. Compatible models include the A4, Beetle, Passat, Jetta, Golf and GTI. The BCS provides user adjustability of maximum boost. At the minimum setting, the boost is held to the stock level of 6 PSI and the car will drive exactly like a stock car. As the boost setting is increased, the allowable boost is increased in precise increments. At the maximum setting, the boost is allowed to reach 14.5 PSI. This boost increases horsepower by 30 hp and the low-end torque is increased by 45 ft-lbs.

The BCS includes a ten segment, three color LED boost gauge that reads in 1.5 PSI increments from 1 to 14.5 PSI. The display is electronically filtered to provide a smooth reading.

The BCS offers an alternative to aftermarket re-programming of the ECU. With the BCS, the stock ECU programming is maintained. This helps to preserve smooth and predictable drivability.

The BCS is easy to install. Its small size makes it easy to fit in the center console. The six wires leading from the BCS are all connected to the car's wiring harness at one location.

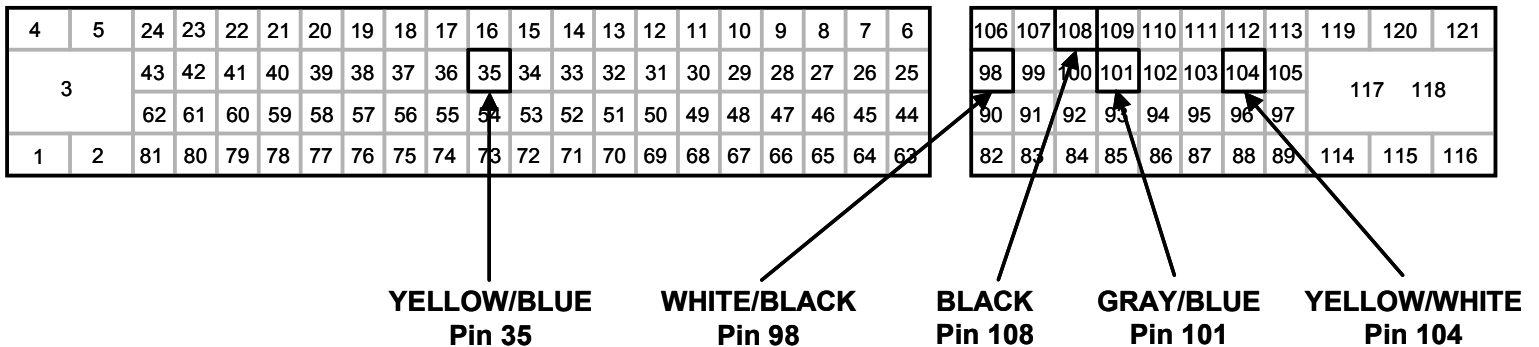
Features:

- Maximum boost adjustable from the driver's seat
- Maintains stock ECU programming
- Boost gauge reads manifold pressure from 1 to 14.5 PSI in 1.5 PSI steps
- Low cost
- Miniature size
- Easy to install

Example Wiring Diagram:

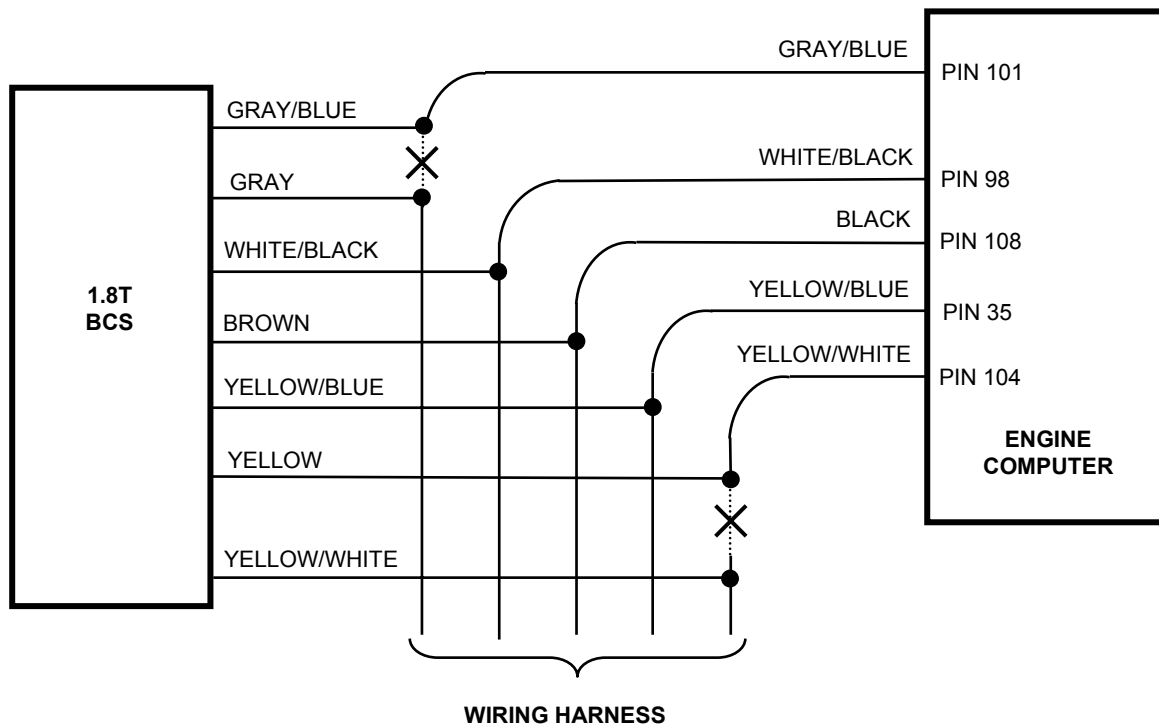
These connections are for the Passat. Detailed instructions for all 1.8T models are included with each unit.

All wire connections are made to the wiring harness near the engine computer. The wires are identified by color code and ECU connector location.



Connections:

All connections are T-taps except the GRAY/BLUE and YELLOW/WHITE wires. Those wires are cut. Each side of the cut wires are connected to wires on the BCS wire harness.



Adjustment Procedure:

The 1.8T BCS has a rear panel adjustment that is used to fine tune the calibration for the specific model and engine code of your car. If the setting is too high or too low, your car will not make full power. After completing the installation of the BCS, the rear panel calibration can be set on a short test drive. Begin with the setting on maximum (100). Do a test pull in third gear at wide open throttle from 2000 RPM to redline. If you experience a sudden drop off in power, reduce the calibration setting from 100 to 90 and repeat the test. Continue to repeat the test, with a setting lower by 10 each time, until you find a setting that allows the car to pull strongly all the way to redline. If you experience surging (a cyclic variation in power) reduce the calibration setting a little bit.

Troubleshooting Guide:

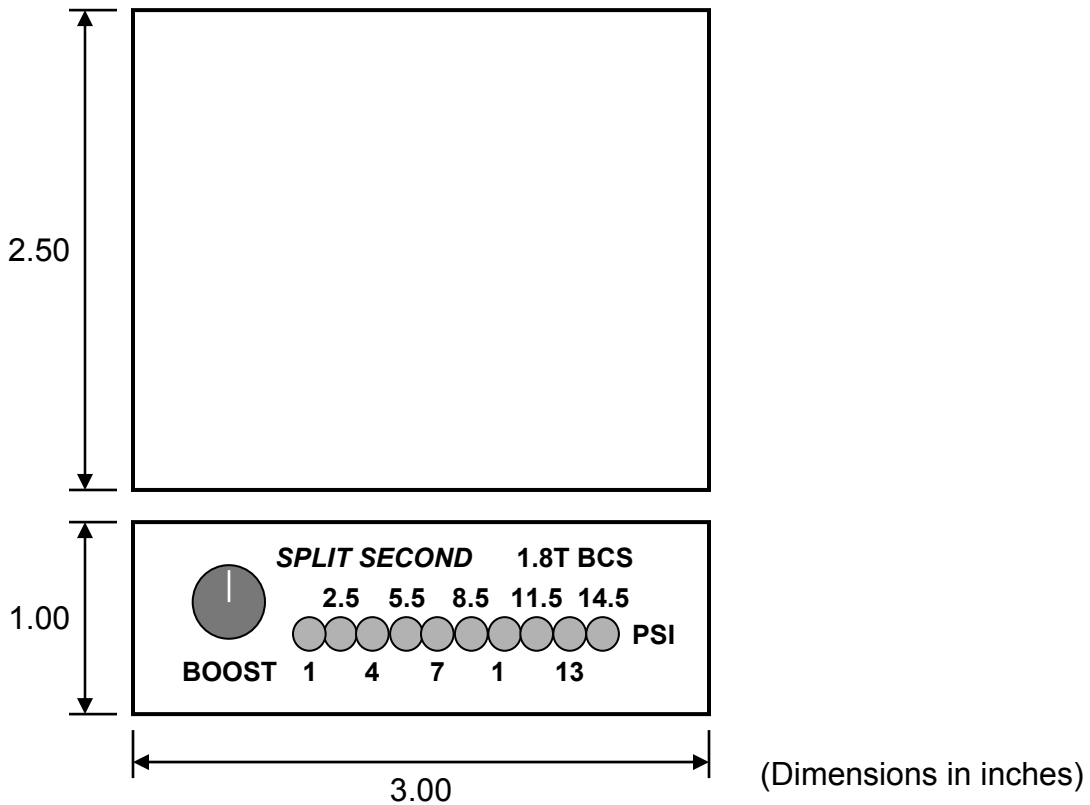
The following chart can be used to troubleshoot installation problems with the 1.8T BCS. VDC indicates the voltages that should be measured with respect to chassis ground. By making the measurements on the BCS wires with a piercing probe you can be sure that the wire is connected to the right place and that the connection is good.

ECU pin	Function	VDC	BCS Wire Color	Notes
108	Ground	0	Brown	Ignition on
98	VDD	5	White/Black	Ignition on
35	TPS	0 to 5	Yellow/Blue	Ignition on, varies with throttle pedal
-	Waste gate	5	Yellow	Engine Running
104	Waste gate	13.5	Yellow/White	Engine running
-	MAP sensor	1.9	Gray	Ignition on (sensor out)
101	MAP sensor	1.9	Gray/Blue	Ignition on (ECU input)

Display Characteristics:

LED	COLOR	BOOST PRESSURE (PSI)	
		Min	Max
1	GREEN	1.0	2.5
2	GREEN	2.5	4.0
3	GREEN	4.0	5.5
4	GREEN	5.5	7.0
5	GREEN	7.0	8.5
6	YELLOW	8.5	10.0
7	YELLOW	10.0	11.5
8	YELLOW	11.5	13.0
9	RED	13.0	14.5
10	RED	14.5	----

Mechanical Characteristics:



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