



Variable Valve Timing (VVT) Solenoids

What is a VVT solenoid?

- ✓ The VVT solenoid controls oil flow that shifts the VVT sprocket, or cam phasers, within engine.
- ✓ This sprocket changes the positioning of the camshaft, allowing for the most accurate valve timing for maximizing an engines performance.
- ✓ VVT solenoids are used in the majority of the new car/trucks being produced for the NA market.
- ✓ Vehicles utilizing the VVT technology will have improved fuel economy and reduced vehicle emissions.

What causes failures of the VVT?

- ✓ Sludge buildup due to dirty oil, extreme conditions, or electronic failures can destroy a VVT.
- ✓ Damaged or failed VVT's can lead to check engine lights, poor/jerking engine performance, higher fuel consumptions, failed emissions testing, stalling, and/or overall engine failures.

Product Line Coverage

- ✓ 110+ SKUs for complete coverage of the North American market.

The WAI Difference

- ✓ WAI offers VVT solenoids at or above OE quality, allowing our customers to restore their engines back to maximum performance levels.
- ✓ WAI's VVT solenoids perform, fit, and function like the OE, leading to faster install and repair.
- ✓ Comprehensive testing, which includes vibration, extreme temperature, humidity, corrosion and pressure testing allows for WAI to provide the top performing and highest quality VVT's to the market.



Top 10 VVT Solenoids



The Power of WAI

NA Sales Rank	WAI Part Number	Applications	Competitive Interchange
1	VVTS1709	GM 2005-2017	TS1014, VVT198, 7V1001, VV1098, 917-215, VTS1001
2	VVTS1701	GM 2006-2015	TS1015, VVT199, 7V1002, VV1099, 917-216, VTS1003
3	VVTS1703	GM 2002-2012	TS1012, VVT102, 7V1000, VV1002, 917-010, VTS1002
4	VVTS1702	Ford 2001-2014	TS1010, VVT101, 7V2003, VV1001, 917-200, VTS1004
5	VVTS1710	Toyota 1992-2010	TS1029, VVT156, 7V4001, VV1056, 917-211, VTS1005
6	VVTS1711	Toyota 1992-2010	TS1024, VVT157, 7V4000, VV1057, 917-214, VTS1007
7	VVTS1796	Honda 2002-2011	TS1147, VVT144, 7V5008, VV1044, 917-224, VTS1189
8	VVTS1704	GM 2004-2017	TS1013, VVT190, 7V1004, VV1090, 917-219, VTS1011
9	VVTS1712	BMW 2000-2013	TS1046, VVT207, 7V9018, VV1107, 917-241, VTS1017
10	VVTS1713	Toyota 2000-2016	TS1091, VVT162, 7V4005, VV1062, 917-210, VTS1010



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