

What's New?

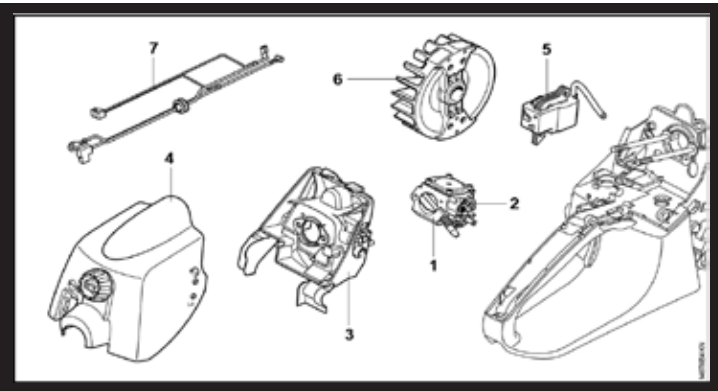
The Revolutionary MS 280 IEM



Andreas STIHL recently released the revolutionary new "Intelligent Engine Management (IEM) technology as an

exclusive feature of the MS 280-1133 Series -- specifically the MS 280 and the MS 280 C-BQ. These are the first chain saws in the world featuring this innovative engine management control system, which ensures top engine performance by electronically optimizing the fuel mixture over the whole RPM-range.

A complete explanation of how the system functions can be found on page 15 of the 2007 STIHL Power Tools and Accessories Catalog. A complete technical guide for testing the IEM system is explained in STIHL Technical Bulletin – T.I.49.2006. Note that STIHL Tachometers EDT 7 and EDT 8 are required for measuring Engine RPMS on Chain Saws equipped with the IEM System.



The IEM Carburetor (1) has Solenoid Valve (2) Installed and is Controlled by IEM Ignition System (5). The power is derived from a Double Pole Flywheel (6) and power is routed by Wiring Harness (7) from the ignition system to the Solenoid Valve. To identify the IEM System, the Air Filter Cover (4) has no (H) screw markings. Air Filter Base (3) also has provisions for IEM System.



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Tech Service Tips

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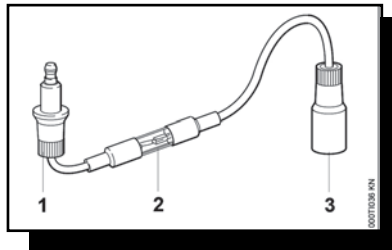
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How to... Testing the IEM System
Now with Online videos!
This and That Oil Passage Plug
Over-Sized Bar Studs
Damaged Components

How to...

Testing the IEM System

A

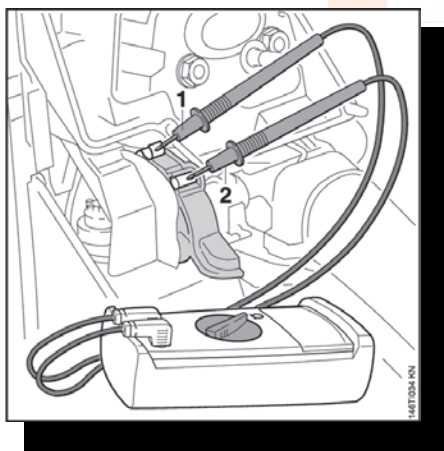


First, attach a ZAT-4 to the Spark Plug (3) and Ignition System (1). Start the Machine and Watch the Spark Jump in Window (2). If the Ignition System Fails after 10 Seconds at a speed greater than 4,000 RPM, check the connections between the ignition module and solenoid valve. The ignition is programmed for "Fail-Safe" Mode and shuts the machine off if the connection is not made.

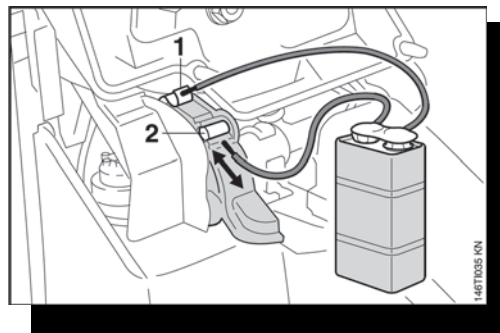


B

Set the Master Control Lever™ to Full Choke. Use a Volt-Ohm meter on the Ω Setting. Connect test lead (1) to the contact spring and test lead (2) to the eyelet of the short circuit wire. Resistance should be between – 30 and 38 Ω .



C



With the Master Control Lever™ set to Full Choke, briefly apply a 9V test voltage to the Contact Spring (1) and the eyelet of the short circuit wire (2). When the circuit is made, the Solenoid Valve should Switch or Click.

Again, apply the test voltage only briefly to avoid damage to the Solenoid Valve. If the three tests pass then the IEM is working correctly. If one of the tests fails, then consult the STIHL Technical Bulletin T.I.49.2006 for further information on troubleshooting the IEM System.



Look for it Online...

We're adding a new interactive feature to Tech Tips and the POST Powerline. Anytime you see this movie camera icon, it's your clue to log on to cdcastihl.net and checkout an associated video clip. Just visit cdcastihl.net and look for the links to the Video Library!



...this and that.....

Repairing Damaged Components

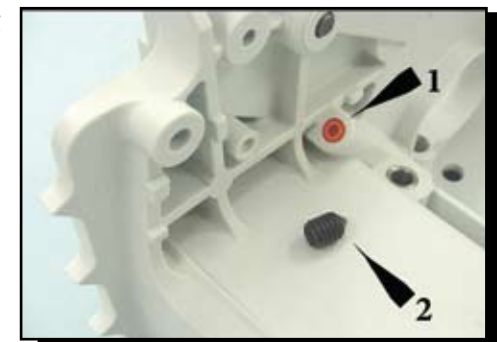


To repair a machine when the Bar Studs have been pulled out of the housing, the following over-sized bar studs may be used:

Standard Collar Screw	1127 664 2400 DG 8
Oversized Collar Screw	1127 664 2410 DG 9
Standard Collar Screw	1123 664 2400 DG 8
Oversized Collar Screw	1123 664 2405 DG 9
Standard Collar Screw	0000 953 6605
Over Sized Collar Screw	1115 664 2405

Replacing the Oil Plug

Several models of chain saws have a plug (1) where the oil passageway is drilled during assembly. If the plug comes out, grub screw (2) can be installed with Red Loctite™ 262 to reseal the oil passageway.



Make sure to leave approximately 1/16" of the head of the grub screw exposed above the surface of the housing. This will ensure proper oil flow to the guide bar outlet port.

Grub Screw - 9134 381 1230