



E46 VDO Gauges

Parts Required, included in kit:	Leather Gauge Panel 1 Gauge, Oil Pressure 80 psi, 350104 1 Gauge, Oil Temperature 300 Deg F, 310106 1 Gauge, Voltmeter 12 Volt, 332103 3 Adapter U-bracket, 600402 1 Sender, Oil Pressure 0 - 80 psi M10x1K w/ 7PSI Warning Contact, 360006 1 Sender, Oil Temperature 300 Deg F, 323092 1 Adapter Angle Male M12x1.5 / Female M10x1, 240043 3 Bulb Covers, orange XXXX color XX gauge sender wire, 16 feet XXXX color XX gauge sender wire, 16 feet XXXX color XX gauge panel illumination wire, 3 feet XXXX color XX gauge panel illumination wire, 3 feet XX ¼" push-on connectors, XX for panel and 1 for oil temperature sender 2 O-ring connectors for oil pressure sender XXX tie wraps
Tools Required:	24mm combination wrench 3/4" or 19mm combination wrench 17mm socket Torque wrench with range up to 25 ft-lbs. Silicon caulk and caulking gun Soldering iron, heat shrink, solder, etc.
Optional:	Oil filter Engine Oil

Application

6-cylinder E46 BMWs, 1999-present, all but S54 M3.

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Basic Installation Instructions

This is not an easy mod. Do not attempt it if you do not feel mechanically comfortable. If you make an error installing the senders, you could seriously damage your car and/or void your warranty. I will go into as much detail as possible in this write-up, but if you have questions after reading it, you should probably not attempt this mod. Call me if you have questions. I am happy to help out and I always enjoy talking with other BMW enthusiasts.

There are additional notes and pictures here: http://www.csua.berkeley.edu/~lleong/vdo_install/
It will be worth your time to read, review, and print information from this website before you begin work.

NOTE: Read these instructions entirely before you do anything else. Installation of the LeatherZ gauge panel and VDO senders requires technical skills. Incorrect installation will cause damage to your car. If you are unsure about any step in this installation, have your dealership or a professional mechanic install the gauges for you. LeatherZ assumes no responsibility for damage to yourself or your car either directly or indirectly from the LeatherZ gauge panel or from any VDO parts. LeatherZ makes no claims nor assumes no responsibility for the warranty of your car, which may or may not be affected by installation of the gauge panel.

Complete Instructions Included with All Complete Gauge Kits