

# sector 111

gPAN installation

Rev. C

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## READ FITTING INSTRUCTIONS IN FULL BEFORE INSTALLATION

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1. Confirm the following items are in your kit



- 1 gPAN
- Windage tray
- 4 - 10-24 BHCS
- 4 - 1/4" Large OD Washers
- Drain Plug
- 1/8 pipe plug
- 13 - M6x20mm Flange bolts
- 3 - M6x30mm studs
- 3 - M6 Flange nuts



Tools needed for install:

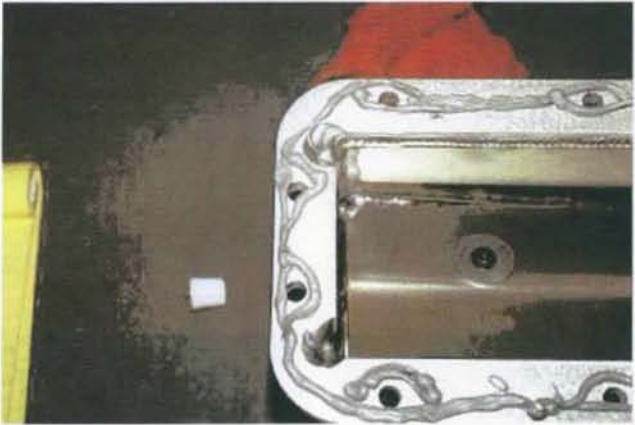
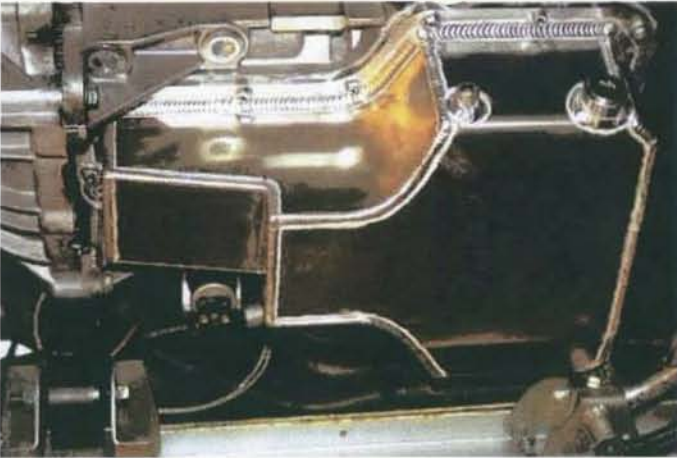
- 10mm socket
- Extension
- 14mm socket
- Ratchet
- 3mm Allen
- 5/32" Allen
- 3/16" Allen
- 3/8" Allen
- Vise grips
- Gasket scraper
- Pry bar
- 8mm socket
- 13mm socket
- Recommended Liquid Gasket
  1. Permatex ultra grey #82194
  2. Threebond #1194



Instructions	Tools/ Parts	Picture/ Illustration
<p>2. Using one of the M6x20mm bolts make sure the bolt fits thru <u>every single hole</u>.</p> <ul style="list-style-type: none"><li>○ <b>Please follow this step before removing stock oil pan.</b></li><li>○ If you find one that does not fit thru, contact us.</li></ul>		
<p>3. Remove Under tray</p> <p>4. Drain oil from oil pan, remove dipstick</p> <ul style="list-style-type: none"><li>○ For best leak free seal on new pan, allow engine to sit for <u>two days</u> after draining oil.</li></ul>	<ul style="list-style-type: none"><li>○ 8mm socket</li><li>○ 13mm socket</li><li>○ Ratchet</li><li>○ 14mm socket</li></ul>	

Instructions	Tools/ Parts	Picture/ Illustration
<p>5. Remove flywheel inspection cover</p> <ul style="list-style-type: none"><li>○ See picture</li></ul> <p>6. Unbolt Stock oil pan</p> <ul style="list-style-type: none"><li>○ Once all bolts and nuts are removed gently use a pry bar to help loosen pan from block, be sure not to touch the mating surface with the pry bar</li><li>○ Run Gasket scraper between block and pan to help in removal</li></ul>	<ul style="list-style-type: none"><li>○ 10mm Socket</li><li>○ Ratchet</li><li>○ Extension</li><li>○ Pry bar</li><li>○ Gasket scraper</li></ul>	
<p>7. Remove Stock studs from block using vise grips</p> <p>8. Using gasket scraper remove old gasket seal from block</p> <ul style="list-style-type: none"><li>○ Note: use a piece of cardboard or something similar as a shield to keep remover from getting into crankcase</li></ul> <p>9. Once block is clean wipe thoroughly with a clean rag</p>	<ul style="list-style-type: none"><li>○ Gasket scraper</li><li>○ Vise grips</li><li>○ Permatex gasket remover (optional)</li><li>○ Wire Brush</li></ul>	

Instructions	Tools/ Parts	Picture/ Illustration
<p>10. Screw in new studs until they just bottom out, locations shown in picture</p> <ul style="list-style-type: none"><li>○ See red circles</li><li>○ These will help align pan once sealant is applied</li></ul>	<ul style="list-style-type: none"><li>○ M6 Studs</li><li>○ 3mm Allen</li></ul>	
<p>11. Test fit gPAN to the engine block to ensure flat smooth mating service.</p> <p>12. Remove inner tray from oil pan and inspect for debris. Be sure to clean as required.</p> <p>13. Thread lock oil pan tray bolts and install tray.</p> <p>14. When installing the 1/8" accessory plug in the side of pan. Wrap threads with Teflon tape and install plug - hand tight.</p> <p>15. Make sure oil pan drain bolt is tight.</p>	<ul style="list-style-type: none"><li>○ 5/32" Allen for inner tray</li><li>○ 3/16" Allen for accessory plug</li><li>○ 3/8" Allen for drain plug</li><li>○ Teflon tape</li><li>○ Red thread lock</li></ul>	

Instructions	Tools/ Parts	Picture/ Illustration
<p>16. Run a continuous bead of liquid gasket along sealing surface. Make sure to run beads around every bolt hole</p> <p>17. Carefully place new pan onto block. Make sure orientation is correct and to clear pickup tube. Hold firmly against block and hand tighten 3 nuts onto studs.</p> <p>18. Install Oil pan bolts</p> <ul style="list-style-type: none"><li>○ Torque bolts and nuts to 9 ft-lbs</li></ul> <p>19. Allow 24hrs for gasket to set and seal before adding oil</p>	<ul style="list-style-type: none"><li>○ Liquid Gasket</li><li>○ 10mm socket</li><li>○ M6 Flange nuts</li><li>○ M6x20 Flange bolts</li></ul>	 A close-up photograph showing a silver-colored metal oil pan gasket being applied to a dark engine block. A yellow tube is visible on the left side of the frame.
<p>20. Add new oil to engine</p> <ul style="list-style-type: none"><li>○ 6 liters of 5W-40</li></ul> <p>21. Visually inspect pan for leaks around seal and fittings before starting engine</p> <p>22. After verifying there are no leaks start engine and run for 1 minute. Recheck oil level and recheck for leaks.</p> <p>23. Start engine and let car reach operating temp. Shut off engine and let engine sit overnight for final leak check. Once finished install under tray</p>		 A photograph showing the oil pan installed on the engine. The pan is a polished metal and is secured with bolts. The engine's internal components and pickup tube are visible through the pan's opening.