Hypermax Engineering, Inc.
255 E. Route 72 Gilberts, IL 60136
Tel (847) 428-5655 Fax (847) 428-5682
info@hypermaxdiesel.com

HYPERMAX ENGINEERING, INC.

MAXCHIP™ INSTALLATION ON ENGINE CONTROL MODULE

1999-2002 F-Series with 7.3L Diesel

PLEASE READ THESE INSTRUCTIONS

Thank You for your purchase of our MAXCHIP™. This chip is designed to plug into the vehicle's engine control module and will increase vehicle performance and fuel economy. This is a result of many hours of engine dynamometer testing and vehicle evaluation. To avoid any costly mistakes in the installation, please read these instructions first, then follow the instructions and proceed.

The MAXCHIP™ plugs into the control module via an electrical connection, the contacts of the module must be cleaned. This will allow for a proper connection. The only way to clean the module is to remove it from the vehicle.

The instructions are supplied to help you remove, clean, and reassemble the module into your vehicle.
The MAXCHIP™ may run engine exhaust gas temperature above the maximum recommended temperature of 1250°F at the turbine inlet, without the optional exhaust enhancements. Therefore it is recommended that the exhaust manifold temperatures be monitored. Hypermax Engineering has a pyrometer gauge available for this application (http://www.gohypermax.com/Catalog.aspx?category=264988a7-267f-40ea-90fd-aa290eed1705).

LOCATION (See Illustrations)
7.3 Liter F-Series 1999–2002 **LH** firewall as depicted in illustrations.

REMOVAL

1. Disconnect both battery ground (negative) cables. Failure to do so will damage engine control module.
2. Loosen bolt (10mm hex) connecting module harness to control module. This bolt is located on the engine side of the firewall and is captive to the harness connector and should not be removed.
3. Control module access and removal:
   a. The control module is located next to the parking brake, and is removed from inside the cab.
   b. Remove the two 7mm screws that hold the black plastic module cover to the module bracket.
   c. Remove the 10mm nut that holds the bracket to the firewall, and loosen the 10mm bolt that holds the bracket to the inner cab wall. Pull bracket away from firewall and off the stud.
   d. The module and the cover can now be removed.

INSTALLATION OF MAXCHIP™ INTO ENGINE CONTROL MODULE

4. Remove black plastic cover from back of module, and locate the 30 position card edge connector.
5. Remove 6 cover screws and split module apart. Be careful to avoid damage to the electronic components.
6. If there is any white grease on the edge connector, wipe it off with a rag.
7. Remove the conformal coating off both sides of the edge connector using a small razor knife or equivalent instrument. Be careful not damage the metal contacts; you are just removing the coating for a positive connection.
8. Wipe off any debris from the edge connector, making sure it's clean.
9. Using the provided scratch pad, buff the edge connector terminals. The silver solder will buff off and the terminals will be a shiny brass color.
10. Wipe off any debris from the edge connector, making sure it's clean.
11. Reassemble the module and tighten the 6 cover screws.
12. Insert MAXCHIP™ into the edge connector so that it is flush with the module, see figure 1.
13. Using the clear caution label decal that is provided, wrap the decal on top of module around the MAXCHIP™ and around the bottom of the module. This will also help secure the MAXCHIP™ from vibrating loose and losing its connection.

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FIGURE 1

MODIFICATION OF THE BLACK PLASTIC MODULE COVER

1. The back of the cover needs to be modified for clearance with the chip. Using a saw, cut a window in the back of the cover, approximately 4.25" long. The MAXCHIP™ is located in this window.
2. To help make the installation easier. It is recommended that the protruding lip that is located on the side of the cover and interlocks with the bracket be removed; use a saw or a file.

INSTALLATION OF ENGINE CONTROL MODULE

1. Install the module into the cover with the MAXCHIP™ located in the window.
2. Install module\cover into bracket. Make sure the module vehicle connection is sticking out through the firewall.
3. Install bracket back over stud, install and tighten the 10mm nut and 10mm bolt. Install and tighten one 7mm screw that holds the cover to the bracket, see figure 2.

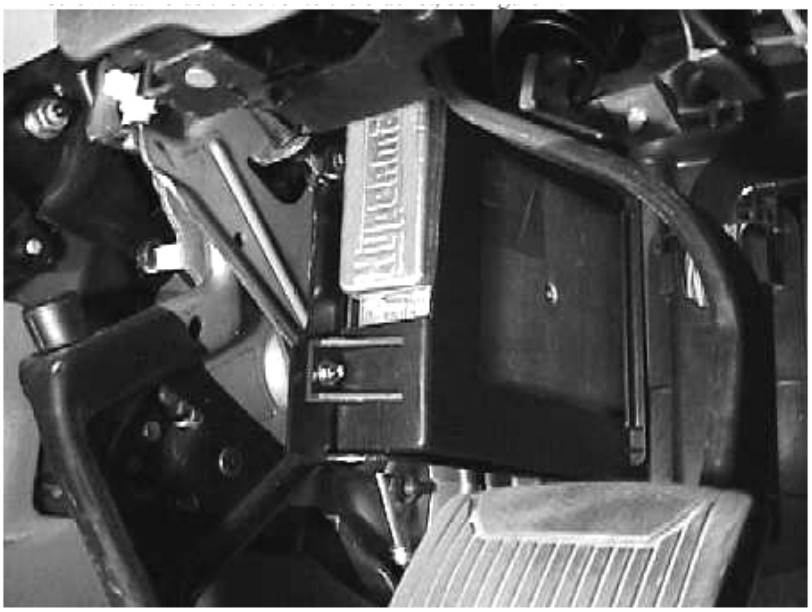

FIGURE 2

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4. Ensure harness connector is engaged in module. This is done by the engine side of the firewall. Do not over tighten 10mm connector hex bolt, maximum torque - 15 in/lb.
5. Connect battery ground cables.
6. If the vehicle experiences a “no-start” situation, remove MAXCHIP™. Verify the MAXCHIP™ code with the engine control module code. Re-clean the engine control module following the enclosed instructions.

It is recommended to remove the MAXCHIP™ before visiting the dealer for service work.

DO NOT ATTEMPT TO REMOVE MODULE OR CHIP WHILE ENGINE IS RUNNING.
SEVERE ENGINE DAMAGE WILL RESULT.

-CAUTION-
USING THIS PRODUCT WITHOUT FREQUENT EXHAUST MANIFOLD TEMPERATURE MONITORING CAN RESULT IN A CATASTROPHIC ENGINE FAILURE. IT IS THEREFORE NECESSARY TO UTILIZE AN EXHAUST PYROMETER INSTRUMENT CAPABLE OF MEASURING EXHAUST MANIFOLD TEMPERATURE UPSTREAM OF THE TURBOCHARGER.

UNDER NO CIRCUMSTANCES SHOULD THE EXHAUST MANIFOLD TEMPERATURE EXCEED 1250°F.

See the Hypermax web site for new and exciting products to enhance the performance of your vehicle. Our eCommerce store is located at www.gohypermax.com and our e-mail address is info@hypermaxdiesel.com.

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MAXCHIP™ INSTALLATION ON ENGINE CONTROL MODULE

1994-1998 F-Series with 7.3L Diesel

PLEASE READ THESE INSTRUCTIONS

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The instructions are supplied to help you remove, clean, and reassemble the module into your vehicle.
The MAXCHIP™ may run engine exhaust gas temperature above the maximum recommended temperature of 1250°F at the turbine inlet, without the optional exhaust enhancements. Therefore it is recommended that the exhaust manifold temperatures be monitored. Hypermax Engineering has a pyrometer gauge available for this application (http://www.gohypermax.com/Catalog.aspx?category=264988a7-267f-40ea-90fd-aa290eed1705).

LOCATION (See Illustrations)
7.3 Liter F-Series 1994-1998.....**LH** firewall as depicted in illustrations.

REMOVAL

1. Disconnect both battery ground (negative) cables. Failure to do so will damage engine control module.
2. Loosen bolt (10mm hex) connecting module harness to control module. This bolt is located on the engine side of the firewall and is captive to the harness connector and should not be removed.
3. Control module access and removal:
   a. Fender apron must be partially detached.
   b. Remove module hold down gasket/retainer by removing both (10mm or 11mm hex) nuts on the top and bottom.
   c. Push fender apron down, module will slide forward and out of location.

INSTALLATION OF MAXCHIP™ INTO ENGINE CONTROL MODULE

4. Remove black plastic cover from back of module, and locate the 30 position card edge connector.
5. Remove 6 cover screws and split module apart, be careful to avoid damage to the electronic components.
6. Remove the white grease from the edge connector with a rag.
7. Remove the conformal coating off both sides of the edge connector using a small razor knife or equivalent instrument. Be careful not damage the metal contacts; you are just removing the coating for a positive connection.
8. Wipe off any debris from the edge connector, making sure it's clean.
9. Using the provided scratch pad, buff the edge connector terminals. The silver solder will buff off and the terminals will be a shiny brass color.
10. Wipe off any debris from the edge connector, making sure it's clean.
11. Reassemble the module and tighten the 6 cover screws.
12. Insert MAXCHIP™ into the edge connector so that it is flush with the module, see figure 1.
13. Using the clear caution label decal that is provided, wrap the decal on top of module around the MAXCHIP™ and around the bottom of the module. This will also help secure the MAXCHIP™ from vibrating loose and losing its connection.

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FIGURE 1

INSTALLATION OF ENGINE CONTROL MODULE

1. Push fender apron down, slide module into position in vehicle.
2. Install module gasket/retainer, module locators, straps, clips, etc. Do not over tighten gasket/ retainer hex nuts.
3. Ensure harness connector is engaged in module. Do not over tighten 10mm connector hex bolt, maximum torque - 15 in/lb.
4. Install any components and trim that were removed, including the fender apron.
5. Connect battery ground cables.
6. If vehicle experiences a “no-start” situation, remove the MAXCHIP™. Verify the MAXCHIP™ code with the engine control module code. Re-clean engine control module following the enclosed instructions.

It is recommended to remove the MAXCHIP™ before visiting the dealer for service work.

DO NOT ATTEMPT TO REMOVE MODULE OR CHIP WHILE ENGINE IS RUNNING.
SEVERE ENGINE DAMAGE WILL RESULT.

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