# AutoProm Quick-Start Guide

[ Additional documentation at www.moates.net  © 2007 Craig Moates, craig@moates.net ]

## Real-Time Tuning / Emulation

1) **Make sure car is in key-off position with no power to the ECM**. Remove the 'stock' chip and install socket adapter (G1 or G2) if not already present. **Remove any chip from the AutoProm ZIF socket!**

2) Hook the 28-pin ribbon cable header to the ECM chip adapter socket**. Make sure the 'red' wire points toward where the notch, or Pin1, would be on a chip normally going in the socket**. The AutoProm will auto-select its power source from either the USB port or the ECM header.

3) Get your PC powered on with TunerPro or TunerCat loaded up. Hook USB cable up to the AutoProm and PC. Check the AutoProm switch positions along the backpanel. The innermost horizontal switch can be positioned either inboard (10k) or outboard (open A-B) depending on ECM requirements. **The outer horizontal switch should be in the 'towards the USB port' position.**

4) If you haven't already loaded a file onto the AutoProm, you will get an SES light condition indicating bad PROM content. Now is the time to go ahead and **initialize the AutoProm** from the PC software (should be under 'Emulation, Initialize' option). Once initialized, **load the desired binary file into the PC software and upload it to the AutoProm** (option should be right next to the 'Initialize' button). You may want to select the 'Verify' option (in TunerPro) to ensure that the binary upload was successful. If you keyed the vehicle on without a valid binary loaded, you may need to cycle the key off for about 20 seconds to let the ECM reset.

5) At this point, you should have the AutoProm loaded with the desired binary file. **The car should now respond as though a chip with the uploaded binary content is installed**. If not, then there is an issue. Either the binary is corrupt or some other condition exists.

6) From the PC software, you can **make on-the-fly changes** in the BIN content and have those changes immediately transferred to the AutoProm and the car should respond accordingly. There are several options within the supporting PC software, such as 'Checksum Disable', 'Upload Entire Tables', 'Update Checksum', and 'Keep Item Open', etc., so read through the documentation and practice a little bit so you understand what is going on and what to select. Typically, **checksum disable or update checksum should be selected**, so keep that in mind. Use a setting of "AA at 08" for 28 pin applications, and "AA at 04" for 24 pin ECMs.

7) *Have fun, and try not to burn anything up other than rubber and fuel!*

## Stand-Alone Datalogging

1) It doesn't matter whether the AutoProm is connected to the ECM chip socket or just the USB cable, since for standalone data logging, it gets its power for that function from the USB port. Just **hook it up to the PC USB port and place the outer horizontal switch in the standalone, 'away from USB port' position** (toward outside).

2) **Connect the ALDL cable to the car's ALDL connection. Place the inner horizontal switch on the AutoProm backpanel in the proper position for your vehicle and mode desired**: inboard="10k across A-B", outboard="open between A-B".

3) **Load up your favorite datalogging program** on the PC, such as "TunerPro", "WinALDL", or "TTS DataMaster". You may need to select an ADS file to define your datastream if using TunerPro. **Turn on the key and start logging data!** To stop, just turn car off and disconnect hardware. Keep in mind that in this mode, the hardware will not be 'detected' like the AutoProm mode, and that you'll need to specify which USB Serial Port number (hopefully COM3 or COM4) has been allocated to the port in the datalogging software preferences.

## Simultaneous Emulation and Datalogging

1) **Carry out the same steps as in Topics (1) and (2) above, except keep the inner horizontal switch in the 'inboard / toward USB port' position**.

2) **Use a simultaneous-supporting program such as TunerPro RT** to perform simultaneous datalogging and real-time emulation/tuning. You should see results from changes to the binary on-the-fly right when you make them.

## Chip Reading and Programming

1) **Connect the AutoProm to the USB cable**. The USB will supply the power.

2) **Place the target or source chip in the ZIF socket**. **Orientation is critical**, and the chip should be placed with its notch or arrow facing toward the ZIF handle and toward the back panel of the AutoProm. The chip should be at the 'bottom' of the socket, such that any unused socket pin slots are closest to the handle or backplane.

3) **Use a supporting software program, such as TunerPro or FlashBurn** to pick read/write operation, file location and name, starting and ending addresses, any hex offsets, bank selection, or other characteristic of the read/write operation. **Carry out desired program/read/verify steps as desired, and remove chip from socket.**