



**CAUTION: CAREFULLY READ INSTRUCTIONS BEFORE PROCEEDING.
NOT LEGAL FOR USE OR SALE ON POLLUTION CONTROLLED VEHICLES.**

FIRMWARE REVISION HISTORY

Rev 7.22 firmware is a minor update to Rev 7.10 that improves starting and J1850 bus initialization. It includes all the new features of previous Rev 7.04-7.10:

- Support for 6th gear indicator light on 2007 models.
- Improved cold start enrichment with independent enrichment for front and rear cylinders.
- Asynchronous fuel injection on rapid throttle opening – improves off idle throttle response
- Faster closed loop idle speed control response and new anti-stall mode for problematic applications
- **PC Link TCFI IID version 10.0 and TCFI Log version 10.0, available for download from our website, are required to support the features listed above.**
- Improved support for third party scan tools and reading/clearing codes with speedometer.
- Automatic TSM/TSSM code clearing eliminates occasional flashing of turn signal lights at key on event
- Revised check engine light function – now same as OE. Check engine light goes out when engine initialization is complete.

This firmware revision also incorporates the new feature implemented with the previous Rev 5.24:

- Fixed bug that caused improper deceleration enrichment under some conditions.

FIRMWARE UPDATE PROCEDURE

1. Use your current version of PC Link TCFI IID and download your current setup data from the TCFI IID.

WARNING: Do not use with TCFI or single sensor TCFI II. Only for use with TCFI IID with WEGO IID dual sensor system.

2. Save your setup data to disk. **All data in the TCFI IID is lost during update.** Setup data will require editing as explained in the following section.
3. **Skip this step if updating from Rev 7.04 or 7.10.** Print your ET Based Cold Start Enrichment and Time Based Cold Start Enrichment Tables. You will be using data from these tables as **reference** values.
4. Update the TCFI IID firmware using Mega Boot Programmer software and the TCFI IID Rev 7.22 firmware files (refer to the Mega Boot Programmer instructions and firmware readme file). You can download Mega Boot Programmer and the TCFI IID Rev 7.22 firmware from our website.

SETUP FILE UPDATE PROCEDURE

1. Update the PC Link TCFI IID and TCFI Log software on your PC to the latest available versions (must be 10.0 or higher). You can download the software and accompanying new instructions from our website. You should also download the latest version of the TCFI IID Tuning Manual.
2. **Skip ahead to step 15 if updating from Rev 7.04 or 7.10.** You do not have to edit your setup data.
3. Please read pages 8-12 in the new PC Link TCFI IID instructions and page 5 of the new TCFI Log instructions. Take some time to familiarize yourself with the new cold start enrichment tables, module parameters, and chart display functions.
4. Refer to Table 3 on page 12 of the new TCFI IID Tuning Manual. Pick the setup file that most closely matches your application. Open the selected file and print the five 2D cold start enrichment tables. You will be using the data from these tables as **default** values.
5. Open your setup file saved from step 2 in the Firmware Update Procedure with the new version of PC Link TCFI IID. The program will convert the file to the new format. Then edit the following areas.

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6. **Basic Module Parameters.** New functions added include a check box for Anti-Stall IAC mode and the 6th Gear Ratio parameter. Leave Anti-Stall IAC mode unchecked unless advised otherwise by tech support. If you have a 2007 model, refer to the new PC Link TCFI IID instructions and TCFI IID Tuning Manual for further details on determining the 6th gear ratio. If you have a 2001-2006 model, you can enter a default value of 23.5.
 7. **Advanced Module Parameters.** Enter a value of 100 for the new Asynchronous Fuel Gain parameter.
 8. Edit the following 2D cold start enrichment tables. Make sure you save all edits to buffer memory.
 9. **Time Based AFR Cold Start Enrichment Table.** Enter the default values from the setup file you printed in step 3. These default values will be correct for most applications and should not be changed without consulting tech support.
 10. **ET Based AFR Cold Start Enrichment Table.** Enter the default values from the setup file you printed in step 3. These default values will be correct for most applications and should not be changed without consulting tech support.
 11. **Time Based Fuel Cold Start Enrichment Table.** Enter the default values from the setup file you printed in step 3. Compare these default values to the reference values on the Time Based Cold Start Enrichment table printed from your original setup file. The values should be similar – starting at 100% and tapering off to zero after 180 seconds. If there is a substantial difference, please contact tech support.
 12. **ET Based Front Cylinder Cold Start Enrichment Table.** Enter the default values from the setup file you printed in step 3. Compare these default values to the reference values on the ET Based Cold Start Enrichment table printed from your original setup file. The new values for the front cylinder should be somewhat higher at low temperatures and about the same at high temperatures.
 13. **ET Based Rear Cylinder Cold Start Enrichment Table.** Enter the default values from the setup file you printed in step 3. Compare these default values to the reference values on the ET Based Cold Start Enrichment table printed from your original setup file. The new values for the rear cylinder should be substantially less at low temperatures and somewhat less at high temperatures
 14. Save your edited setup file using a new filename.
 15. Use PC Link TCFI IID to upload your setup data to the TCFI IID unit.
 16. We suggest that you conduct a cold start and hot restart test. To allow viewing and logging AFR data immediately after engine start, turn the ignition switch on but leave the run/stop switch in the stop position. Wait 30 seconds for the WEGO sensors to warm up and then start the engine. Monitor engine data and status with TCFI Log. Download the logged data. Compare the front and rear AFR values after engine start to determine if adjustments are required. Refer to the TCFI IID Idle Tuning Tech Note for more details.