



Shark Injector™

User's Guide

Please follow the enclosed instructions below to ensure the prompt, and effective upgrade of your vehicle in less than 40 minutes!

*Failure to follow all of the instructions explicitly and correctly may result in damage to your BMW's computer. Please note that due to the technical nature of flash reprogramming, we are **not** and will **not** be held responsible for any damage due to nor any damages arising from your use or attempted use of the **Shark Injector™!!!***

By your use of the **Shark Injector™** you hereby agree to waive, release and discharge the manufacturer, resellers, and all other entities, persons and associations connected therewith from any and all claims arising out of, or relating to, the parts purchased including said parts fitness for any particular purpose. If residing in, or currently located in the State of California, you further waive and disclaim the provisions of California Civil Code Section 1542, which provides: "A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known to him must have materially affected his settlement with the debtor".

Please read and understand the conditions of sale set forth above. You further understand that any performance products are to be used on your off-highway racing vehicle in compliance with California State Health and Safety Code Sections 39048 and 43001(a).

If this legal waiver is unacceptable to you, please return the unused Shark Injector™ to your retailer for a prompt refund.

1. **STOP!!** – Please read thru ALL the steps of this instruction sheet! If you are not comfortable with this procedure please return your **Shark Injector™** to your retailer for a prompt refund;
2. Locate the round 20-pin diagnostic port in the engine compartment of your BMW. It will be found in close proximity to either the driver or passenger's side front shock tower or in the vicinity of the intake manifold and is covered by a tethered screw-on cap. Remove the cap by turning the ribbed lock ring and tucking it to the side. The tether should keep the cap attached to the base of the connector housing; 
3. If your vehicle is an E36 M3 with Automatic Transmission, at this time you should consult the **yellow supplemental instruction sheet** enclosed for assistance in temporarily disconnecting your Transmission Electronic Control Unit (EGS) prior to upgrading. **If you have an M3/A, you must complete this step prior to continuing!!** Owners of manual transmission equipped M3's, BMW M Coupes, M Roadsters and any other's may simply continue onward;
4. If your vehicle is a **1999-2000** and listed on the reverse side of the M3/A **yellow supplemental instruction sheet**, please ensure that you have previously had the **(SI 12 15 99) 00E-A01: Fault Readiness / O2 Readiness Codes Not Set** emissions recall update, if applicable. The reverse side of the M3/A **yellow supplemental instruction sheet** has further information on this update for your perusal. Failure to update your BMW as suggested may cause unnecessary delay in having to temporarily return your **Shark Injector™** for a "code 147 analysis";
5. If your vehicle is an **09/98** or later production E39 528 or E39 540, at this time you must disconnect fuses 17 and 31 in the **Glove Box fuse panel**. This is to temporarily remove power to the DSC 3 module to allow upgrading of your DME per BMW bulletin **SI 12 16 99**;
6. If your vehicle is an **09/98** or later production E38 740, at this time you must disconnect fuse 17 in the **Engine Compartment fuse panel**. This is to temporarily remove power to the DSC 3 module to allow upgrading of your DME per BMW bulletin **SI 12 16 99**;
7. To ensure a constant voltage for proper operation of the **Shark Injector™**, attach a high quality battery charger (ex: Sears DieHard 71210, 310, 320, etc.) to the vehicle, **at the battery itself**, observing all necessary safety precautions such as the wearing of safety goggles;
8. Turn charger on at a minimum of the 10 amp setting (**20 amp setting if your vehicle is equipped with Daytime Running Lights – DRL's**) and ensure that charging is occurring;
9. The importance of proper battery voltage cannot be emphasized enough. **Failure to maintain proper battery voltage throughout the procedure may result in an inoperable vehicle**, where the only solution would be the physical replacement of control modules **at owner expense**. Voltage below **12.5v** as a minimum can cause permanent failure. **Owners should evaluate the age and condition of the vehicle battery before proceeding;**
10. Lower drivers and passengers window, open hood and ensure proper hood support;
11. Wait a minimum of 20 minutes to cool engine & charge the vehicle battery with ample reserve power;
12. Exercise the buttons on the **Shark Injector™** by pushing and releasing each 4-6 times;
13. Uncap the diagnostic port and insert the **Shark Injector™** into the port by aligning the center index pin properly while rotating the locking collar so that the entire device lowers and locks into position. Usually you will hear a slight "click" as the locking ring seats fully on the port's housing.
14. Turn the ignition switch to the ON position but **DO NOT** start (**Check Engine** lamp **must** light up);
15. **Assure that ALL electrical loads are OFF** (Radio, Climate Control, Courtesy Lamps, etc); **and that those capable of turning themselves on** (Cell Phone) **are disabled temporarily**;

16. At this time, ensure that the vehicle is **EMPTY of ANY and ALL OCCUPANTS!!** **NO ONE** should remain inside the vehicle during use of the **Shark Injector™**;
17. Check your **Shark Injector™**, the **green STATUS** LED should now be illuminated SOLID green.
18. Press the **UPGRADE** button and within 3 seconds, the **green STATUS** LED will begin to *pulsate* indicating the transfer of programming data between the vehicle's ECU and the **Shark Injector™** internal electronics package;
19. Sit back, relax, watch, but **DO NOT TOUCH** anything inside the vehicle or the **Shark Injector™** itself under **any** circumstances. **DO NOT OPEN THE VEHICLE DOORS** as this can disturb programming!;
20. In approximately 1½ to 6½ minutes, the **red ACTIVE** LED will turn on while the **green STATUS** LED continues to *pulsate* indicating that the **Shark Injector™** is entering the REPROGRAMMING phase;
21. In approximately another 1 to 3½ minutes, the **red ACTIVE** LED will turn off, while the **green STATUS** LED will continue to *pulsate*, this is the final CHECK phase of reprogramming your vehicle;
22. Finally, in about 1 to 3½ minutes, the **green STATUS** LED will stop *pulsating* and illuminate **SOLIDLY**, this is your indication that a performance programming UPGRADE has been successfully verified. If you see a solid **green STATUS** and solid **red ACTIVE** LED, this indicates that a RESTORE to stock was successfully completed.
23. You may now open the vehicle door and turn the ignition completely off. Wait at least 30 seconds, but **DO NOT** remove or disconnect your **Shark Injector™** at this time;
24. If your vehicle is an E36 M3 with Automatic Transmission, at this time you should reconnect the transmission ECU that was previously disconnected in step #3 above before proceeding. ***If you have an M3/A, you must complete this step prior to continuing!!*** Owners of manual transmission M3's, M Coupes/Roadsters and other BMW's may simply continue onward;
25. If your vehicle is an **09/98** or later production E39 528 or E39 540, and you previously removed fuses 17 and 31 in step #5 above, you should reinstall them before proceeding;
26. If your vehicle is an **09/98** or later production E38 740, and you previously removed fuse 17 in step #6 above, you should reinstall it before proceeding;
27. At this point, some people like to have an assistant watching the **Shark Injector™** for peace-of-mind during the next two steps as things happen both subtly and quickly!
28. With the **Shark Injector™** still connected to the vehicle, turn the ignition switch to the ON position but **DO NOT** start (**Check Engine** lamp **must** light up);
29. Watch (but **DO NOT** touch!) your **Shark Injector™**, the **green STATUS** LED will begin to *pulsate* almost immediately indicating the transfer of some final information to the vehicle's ECU. This phase only lasts about 10-15 seconds before the **green STATUS** LED illuminates SOLID green. (In other words, if you are slow getting from the ignition switch around to the **Shark Injector™** you may miss this short-lived event.) Once the **green STATUS** LED is illuminated SOLID green you may proceed.
30. You may now turn the ignition completely off. Please wait at least 30 seconds;
31. Remove the **Shark Injector™** from the diagnostic port, and recap the port;
32. Turn off and remove the battery charger;
33. Close and secure the hood;
34. Start and enjoy your newly Sharked vehicle!!

Should the **Shark Injector™** encounter any exceptions or difficulties, the red LED will flash out a 3 digit code at a pace of 0.5 sec per flash with 2 seconds pause between digits. All codes begin with a single flash, and none of the digits will repeat. If you encounter any flash codes, refer to the chart below!

The following codes indicate that your vehicle is now drivable, but could NOT be successfully programmed for some reason – follow the advice below to correct the situation. If you must return the DME and/or Shark Injector™ for analysis, please contact your **Shark Injector™** dealer first for shipping instructions.

- 123 **Vehicle voltage too low** – You **MUST** ensure at least 12.5v for programming!! The Vehicle battery is not sufficiently charged or is beyond serviceable life, the charger is not working or has insufficient output
- 124 **Programming voltage too low** – You **MUST** ensure sufficient charge for programming!! The Vehicle battery is not sufficiently charged or is beyond serviceable life, the charger is not working or has insufficient output
- 125 **Programming voltage needed, not present** – Contact your Shark Injector™ dealer
- 142 **DME Hardware Unknown** – Return **DME** and **Shark Injector™** for analysis (your DME hardware is different from any one we have seen to date)
- 143 **DME Contents not stock** – Your existing DME programming is not stock!! The **Shark Injector™** can only function on a stock programmed DME.
- 147 **DME Software Unknown** – Return **Shark Injector™** for analysis (your car may have a old, new, or unusual version of BMW software installed)
- 152 **Injector Stock Storage failure** – Return **Shark Injector™** for analysis
- 153 **Injector not Prepared** – Return **Shark Injector™** for analysis
- 162 **Vehicle Mismatch** – **Shark Injector™** was previously used or attempted to be used on a different BMW!! The unit will only work on one car!
- 163 **Bad User Request** – User requested an UPGRADE when already upgraded, or a RESTORE when already restored to stock.

The following codes indicate that your vehicle could NOT be successfully programmed for some reason, and that it's drivability is in question due to the failure – Please note WHEN and/or WHERE this failure occurred in the process, the state of the **red ACTIVE** and **green STATUS** LEDs and Contact your **Shark Injector™** dealer IMMEDIATELY!!

- 132 **DME Not Responding**
- 134 **DME Message Checksum Error**
- 135 **Protocol Error Busy**
- 136 **Protocol Error Rejected**
- 137 **Protocol Error Parameter**
- 138 **Protocol Error Function**
- 139 **DME reply is not known**

- 145 **DME Final Verify failure**
- 146 **DME Erase failure**