# SBD Motorsport

**Latest MBE ECU & 9MD Software Update Release Notes (also includes Easimap 6 PC updates)**

| Release No | Update Change | Date |
|---|---|---|
| 9A-Release-f912 | 1. Correction in order of operation to pulse setup for VANOS style CAM 1 output on 9A9.<br>2. Update to TP-VX-2.0-K4 EGas calibration.<br>3. Added I3 60-2 Engine Codes<br>4. Added Boost target compensation for EGT.<br>5. EGas target not met timers not reset at Start-up if sweep test is not performed.<br>6. Added Boost target compensation for Turbo Speed.<br>7. EGT limits for Anti-Lag.<br>8. Anti-Lag can adjust EGas by selectable amount.<br>9. Added Variables for Easimap to show Boost sector selection process<br>10. Added Anti-Lag Boost Target and Open Loop Maps<br>11. Added Anti-Lag Pedal Conditions<br>12. Added Anti-Lag Time Condition<br>13. Option To Enable Anti-Lag with Launch<br>14. User Enable/Disable for Anti-Lag Boost Maps, to maintain backwards compatibility.<br>15. Up and Downshift pins have voltage threshold.<br>16. Option for User Program of all HP fuel pump settings<br>17. Added New Wheel speed input CAN message (CANID 4B0)<br>18. Added Vehicle CAN message module with Mazda information.<br>19. Feature added that now prevents idle control exit until pedal results in higher EGas target.<br>20. Added option for EGas to only learn max end stop.<br>21. Improvement to Fuel Pump start (same as all 60-2 trigger wheels).<br>22. Improved Tooth calculation for first crank tooth on 24-1 and 24-2<br>23. Fuel Timing as Constant Stop option.<br>24. 24-1 90deg V8 engine codes.<br>25. Faster Sync When using Magic tooth - as we can trust the input.<br>26. Improvements to fuel pump timer - key on map option introduced. | 22Jun23 |
| 9A-Release-f540 | 1. Added Trigger Wheel 30-2 I4 with Upper Injectors<br>2. Added Trigger Wheel 12+1 I4 with Upper Injectors<br>3. 'Engine Speed' Realtime panel now shows Red background if Crank Sensor/Trigger Wheel Error/Wiring /Engine Speed are Not Valid | 02Nov20 |
| 9A-Release-f531 | 1. Added Pedal Sensor - 3M51-9M836-AH - with PWM input Pin A036 (MAP 2), 9A9 BOM Spec 1.1094 ONLY,<br>2. Added EGas Throttle - 4M5G-EC LF15<br>3. Added EGas Throttle - SBD TP-DURA-2.0L-K3, TP-VX-2.0-K4 – AT Power Motor | 09Oct20 |
| 9A-Release-f521 | 1. VSC (Visual Safety Car) CODE 60 Limiter added, Basic Limiter + Road Speed & EGas limits options.<br>2. Opel ABS CAN inputs Added | 18Sep20 |
| 9A-Release-f493 | 1. Bug fix for the Engine Torque Calculation. It now limits when you are at the injector duty cycle in the Chipfile.<br>2. Bug fix for TPS2 Fault, would not Disabled in Faults when EGas was Disabled | 07Aug20 |
| Easimap R76 | 1. To help cope with ever changing Windows 10<br>2. Improved profile control for advanced users. | 05Jun20 |
| 9A-Release-f491 | 1. Added 36-1 90deg V6.<br>2. If all Dash Data is ZEROS then flagged as fault and treated as 5V. | 05Jun20 |

| | | |
|---|---|---|
| | 3. Added BMW Pedal<br>4. Added Speed based Limit to boost map selection. Or use speed to select boost map. | |
| 9MDa0061 | 9MD Updates | 23May20 |
| 9A-Release-f450 | EGas Driver Diagnostics now protected from interrupts. | 28Nov19 |
| 9A-Release-f431 | 1. Disable Option for Road Speed EGas limit maps added.<br>2. Incoming CAN option for Selection from CAN1 or CAN2 Bus (9A9 and 9A6)<br>3. Inverted CAN Input channels option added.<br>4. 9A4/8 PWM Water Pump, pin Vectoring Bug occurred in Version f351 2019-06-05<br>5. Reverse light Output option. | 20Sep19 |
| 9A-Release-f386 | 1. Calculated Wheelspeed forced to zero if clutch fully pressed and Front Wheelspeeds at zero, to allow Launch to Enabled when Driven Wheels set to Calculated.<br>2. Improvement to arm timer for Launch activation<br>3. Added Optional Afterstart EGas Target Map.<br>4. Bug Fix, EGas Launch limits now correctly applied for 2 Stage Launch.<br>5. Bug Fix, Powershift Enable Flags not properly set with strain shift trigger input.<br>6. Improved OBD2 Comms. | 25Jul19 |
| 9A-Release-f361 | 1. Individual Cylinder ignition offsets<br>2. Bug fix to PWM Water Pump Test Output Function in 9A4/8. | 17Jun19 |
| 9A-Release-f341 | 1. Improved Gear shift strategy for Paddle shift control on MBE9A9 & 9A6 ECU<br>2. Improved Neutral finding on Gearboxes with half gear type Neutral position.<br>3. 5VA faults generated if outside limits.<br>4. 5VA faults disable starter grant.<br>5. Increase Max Wait time for chip file download before fault timeout for earlier 9A4/9A8/9A9 processors<br>6. Added Option for Afterstart Target Idle Speed.<br>7. New 24-2 V2 twin coil output engine codes.<br>8. New Added LS2 Throttle Calibration<br>9. Bug Fix to Blat fuel setup Crank speed reading. | 05Jun19 |
| 9MDa0060-Release | Updated software so 9MD display can reboot processor if a momentary or intermittent loss in power supply happens (e.g. faulty wiring or ignition switch on vehicle). | 02Apr19 |
| Easimap R71 | 1. New sample maps have been added for the 9A4, 9A8 & 9A9 ECUs, which can be used as a base map. These maps are designed for 9A-Release-f251 software onwards.<br>2. Additional Real Time Pages have been added that can be opened and accessed by all users.<br>3. All .ec2 files for software releases that have been released by SBD are also added into R71.<br>4. Bug fix for Windows 10 that overcomes graph display issues, when large amounts of data have been logged within Easimap 6. | 18Sep18 |
| 9A-Release-f251 | 1. EGAS Rest Point Options added either Limp home or Minimum Position.<br>2. New 18-1 Trigger wheel option added for 90 Degree V8<br>3. New 60-2 V6 with Upper & lower injectors<br>4. Over Run fuel Cut off Option added.<br>5. Clio 4 EGAS throttle added.<br>6. BMW Vanos Cam Parking on Key on improved.<br>7. Park Wastegate Feature for EGAS driven Wastegate.<br>8. Added Adaptive knock map limit.<br>9. Added Adaptive Knock Afterstart and gearshift delays. | 12Sep18 |

| | | |
|---|---|---|
| 9A-Release-f170 | 1. Added 36-2 Trigger wheel.<br>2. Option to disable Preset EGas Dither values and use programmable ones<br>3. Option to measure wheelspeed over a programmable number of teeth (for trigger wheels with lots of teeth). | 19Jun18 |
| 9A-Release-f150 | 1. 9A6 & 9A9 Adaptive Knock strategy Added<br>2. Ignition State option now added to 9A4 & 9A8 Programable Pins.<br>3. Filter for Launch Traction voltage relaxed from 0.02V range to 0.04V range - Time still at 25ms.<br>4. 9A6 DI ECU added user programable Open Loop HP Fuel Pump Map.<br>5. 9A6 DI ECU HP Fuel Pressure Compensation map changed to 32 site map | 03May18 |
| 9A-Release-f120 | 1. Added Egas throttles SBD TP52-Judd-EV - Jenvey Motor.<br>2. Added Egas Mk2 SBD throttles with Jenvey motor - dither effectiveness also changed.<br>3. Adaptive Knock Control. 9A9 & 9A6<br>4. Fuel Cut Options for Powershift.<br>5. Turbo Depression strategy to reduce boost if Turbo depression becomes great<br>6. Civic Type R motor driven wastegate Control. | 10Apr18 |
| 9A-Release-be961 | 1. Hella 6PV 008 567-00 or Hella 6PV 008 567-06" pedal calibration added<br>2. Improved Fault Detection for 9A# ECUs<br>3. Refinement of 3 Selectable Boost Control maps<br>4. Improved PID Boost Control.<br>5. Added 24-2 76 deg V8 TPS and MAP engine codes.<br>6. Added 36-1 175 deg ITC V6 TPS and MAP engine codes.<br>7. 2.3L Ecoboost Fuel Pump setup.<br>8. Injector setup table and added 2.3l Ecoboost Injector setup option.<br>9. Improved Traction Control Option  with Torque Compensation to Driven Wheelspeeds (Tyre deformation) Added | 5Jan18 |
| 9MDa0052 | MBE9MD Re-request CAN data from ECU after break in connection | 11Sep17 |
| 9A-Release-be923 | 1. Improved 9A6 GDI Diagnostics<br>2. CAN1 Bus  auto reinitialising  after break in connection.<br>3. Pit Lane Speed limiter Bug fix. | 11Sep17 |
| 9A-Release-be912 | 1. Programmable hard to soft cut difference for speed controlled pit lane limiter.<br>2. Added FoMoCo Throttle Body EcoBoost 2.3L EGas Calibration.<br>3. Added New Hella Pedal sensor calibration.<br>4. Enable/Disable Option for Turbo Intake Boost/Baro Compensation. Turbo Intake boost Compensation no longer disabled with sensor faults - to allow use of defaults to go safe. | 9May17 |
| 9A-Release-be900 | 1. G Sensor load Limits and Default added.<br>2. Oil Temp Voltage Limits and Default added.<br>3. Turbo Intake Pressure added with target boost compensation.<br>4. Direct injection High Pressure Fuel Pump On point now from 2D map vs Crankspeed. | 4May17 |
| Easimap R67 | 1. Updates that help you cope with the ever-changing Windows operating system.<br>2. New features, it allows us and MBE to send out packaged files which will include software and a map, which can be installed by the user in one operation.<br>3. Ready for the new 9MD display and allows the user quick change between the ECU and display, simply by clicking on the device ID and then switching from CAN 1 between CAN 3. | 10Apr17 |
| 9MDa0041 | New MBE9MD Display software | 10Apr17 |
| 9A-Release-be893 | TEVES VW/Audi CAN ABS input changed to TEVES MK60E5 Motorsport. | 4Apr17 |
| 9A-Release-be890 | Improved injector/wiring fault diagnostics | 21Mar17 |
| 9A-Release-be871 | 1. Soft Rev limiter transmitted over MBE CAN for Auto shift light setting on | 15Feb17 |

| | MBE9MD Display.<br>2. Precision Boost Control gains added.<br>3. Port Injectors option added to MBE9A6 DI ECU.<br>4. Option for Starter system to work irrespective of the gearbox state. | |
|---|---|---|
| 9A-Release-be862 | Revised Oil temp setup for MBE9A6 DI ECU | 12Oct16 |
| 9A-Release-be840 | Has up to 8 selectable Max EGAS maps against engine speed | 16Sept16 |
| 9A-Release-be820 | Improved strategies for nitrous oxide control with revised options for increased fuel quantity delivery with lower and upper injector options (ECU model dependent). | 2Aug16 |
| 9A-Release-be800 | Improved control functions for the MBE9A9 internal Logger.<br>New options and conditions for Enabling, Starting and Stopping the Logger. | 25Jul16 |
| 9A-Release-be790 | Low Oil and Fuel pressure warnings timer added, allows user the option to delay warnings being triggered after engine start. | 04Jul16 |
| 9A-Release-be783 | New EGAS/Electronic Throttle Controlled Sweep test option | 28Jun16 |
| 9A-Release-be760 | MBE9A9, VNT, Turbo Variable Geometry Control added. | 03May16 |
| 9A-Release-be750 | Coolant temp based EGAS Cranking map Added.<br>Cranking EGAS target now decays after engine start.<br>Maximum EGAS Position with Pit Lane Speed Limiter Active. | 19Apr16 |
| 9A-Release-be740 | EGAS calibration added for Hayabusa Gen 1 Throttle bodies with Jenvey Motor unit, for Daytuner | 14Apr16 |
| 9A-Release-be730 | 1. TEVES Production Car ABS Source Add<br>2. User Setup option for ABS source<br>3. Traction Warning Lamp Output | 09Apr16 |
| 9A-Release-be710 | 1. New EGAS vs. Road Speed Maps for Advanced Traction Control.<br>2. Software Upgrade to allow Downshifts when Pit Lane Speed limiter is active on Paddle shift setup | 09Mar16 |
| 9A-Release-be700 | 32-1 trigger wheels added | 15Feb16 |
| 9A-Release-be691 | Wheel speed calculation improvement | 01Feb16 |