



mObridge →A2B Ford 8.1.1 Amplifier → Firmware Release Notes

## Latest Firmware for mObridge A2B Ford 8.1.1 Amplifier:

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|---|--------------------------------|
| <b>Version</b>  | 0.9.6                          |
| <b>Release Date</b>   | 22 <sup>nd</sup> December 2025 |
| <b>Changes</b>  |                                |
| • Adding all missing chimes generation, including parking beeps and touch screen beeps. |                                |

### Updating Your Firmware

Your mObridge A2B Ford 8.1.1 Amplifier is fully firmware updatable and can be updated in the following ways:

#### Via mObridge DSP:

Download and install mObridge DSP from [mobridge.us/mobridge-dsp-pc-application](http://mobridge.us/mobridge-dsp-pc-application)

#### Via mObridge Updater:

Download and install mObridge Updater from [mobridge.us/firmware-update/](http://mobridge.us/firmware-update/)

Refer to our website at [mobridge.us](http://mobridge.us) for further information.

## Past Firmware Versions

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| <b>Version</b>   | 0.7.19                         |
| <b>Release Date</b>  | 18 <sup>th</sup> December 2024 |
| <b>Changes</b>   |                                |
| <ul style="list-style-type: none"> <li>Fixing issue where pre-out assigned as a subwoofer does not change gain offset via head unit bass control.</li> </ul> |                                |

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| <b>Version</b>  | 0.7.12                       |
| <b>Release Date</b>   | 8 <sup>th</sup> October 2024 |
| <b>Changes</b>  |                              |
| <ul style="list-style-type: none"> <li>Fixing rare issue where only some channels work on startup.</li> </ul> |                              |

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| <b>Version</b>   | 0.7.8                      |
| <b>Release Date</b>  | 18 <sup>th</sup> June 2024 |
| <b>Changes</b>   |                            |
| <ul style="list-style-type: none"> <li>Adding power down changes to eliminate possibility of pops from the external amplifier output (pre-out).</li> </ul> |                            |

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| <b>Version</b>  | 0.7.7                      |
| <b>Release Date</b>   | 12 <sup>th</sup> June 2024 |
| <b>Changes</b>  |                            |
| <ul style="list-style-type: none"> <li>Fix issue where only one sub woofer would change gain offset via headunit bass control.</li> </ul> |                            |

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| <b>Version</b>   | 0.7.6                     |
| <b>Release Date</b>  | 30 <sup>th</sup> May 2024 |
| <b>Changes</b>   |                           |
| <ul style="list-style-type: none"> <li>Additional amplifier logging to the console.</li> <li>Add ability to view amplifier logged fault counts.</li> </ul> |                           |

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| <b>Version</b>  | 0.7.5                     |
| <b>Release Date</b>   | 20 <sup>th</sup> May 2024 |
| <b>Changes</b>  |                           |
| <ul style="list-style-type: none"> <li>Revert DRC optimization that causes performance issues.</li> <li>Add amplifier logging to the console by default, to ensure power events are always logged.</li> </ul> |                           |

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| <b>Version</b>   | 0.7.4                     |
| <b>Release Date</b>  | 17 <sup>th</sup> May 2024 |
| <b>Changes</b>   |                           |
| <ul style="list-style-type: none"> <li>Fixing corner case where amp base attempts to power off while powering off, causing a pop.</li> <li>Store time alignment distances per-preset, to ensure values are remembered on re-connection to mObridge DSP.</li> </ul> |                           |

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| <b>Version</b>  | 0.7.3                     |
| <b>Release Date</b>   | 10 <sup>th</sup> May 2024 |
| <b>Changes</b>  |                           |
| <ul style="list-style-type: none"> <li>Re-calibrate single ended output levels at the DAC to ensure premature clipping does not occur.</li> <li>Add better DRC support for subsonic frequencies.</li> </ul> |                           |



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| <b>Version</b>   | 0.7.2                    |
| <b>Release Date</b>  | 9 <sup>th</sup> May 2024 |
| <b>Changes</b>   |                          |
| <ul style="list-style-type: none"> <li>Fixing intermittent startup issue where some channels were either low in gain, or not audible at all.</li> <li>Increase debug TX buffer length to ensure entire startup log is retained upon USB connection.</li> </ul> |                          |

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| <b>Version</b>  | 0.7.1                      |
| <b>Release Date</b>   | 2 <sup>nd</sup> April 2024 |
| <b>Changes</b>  |                            |
| <ul style="list-style-type: none"> <li>Revert added support for AUTOSAR messaging, provides fix for the potential for the head unit to be held up, and intermittent parking sensors.</li> </ul> |                            |

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| <b>Version</b>  | 0.7.0                       |
| <b>Release Date</b>   | 25 <sup>th</sup> March 2024 |
| <b>Changes</b>  |                             |
| <ul style="list-style-type: none"> <li>Additional fixes for occasional white static noise issue.</li> </ul> |                             |

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| <b>Version</b>   | 0.6.19                      |
| <b>Release Date</b>  | 20 <sup>th</sup> March 2024 |
| <b>Changes</b>   |                             |
| <ul style="list-style-type: none"> <li>Reinstating faster SPI clocking speed for flash memory communications.</li> <li>Additional DSP resync call on restart, for further DMA synchronization safety.</li> </ul> |                             |

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| <b>Version</b>  | 0.6.18                      |
| <b>Release Date</b>   | 18 <sup>th</sup> March 2024 |
| <b>Changes</b>  |                             |
| <ul style="list-style-type: none"> <li>Fixing rare issue where unit never powers off entirely.</li> <li>Possible fix for unexpected volume ramps when changing sources (stereo to reversing beeps, etc.)</li> <li>Remove streamlining as it is not required for the Ford products where full DSP and time align are present.</li> </ul> |                             |

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| <b>Version</b>  | 0.6.17                      |
| <b>Release Date</b>   | 14 <sup>th</sup> March 2024 |
| <b>Changes</b>  |                             |
| <ul style="list-style-type: none"> <li>Numerous fixes for static white noise issue, including task priority rearranging, reduction of amp base read poll time, reorder serial port initialization/deinitialization, addition of delays, remove optimizations from beep file playback, additional underflow and overflow checking for the DMA.</li> <li>Rework sub-woofer control via head unit bass control. Now acts as an offset to current sub-woofer assigned channel gains.</li> </ul> |                             |

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| <b>Version</b>   | 0.6.11                         |
| <b>Release Date</b>  | 22 <sup>nd</sup> February 2024 |
| <b>Changes</b>   |                                |
| <ul style="list-style-type: none"> <li>Added delay after releasing codec reset to ensure enough time for audio clocks to be present.</li> <li>Added failsafe to ensure that the amplifier baseboard cannot power up without A2B clocks present.</li> </ul> |                                |

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| <b>Version</b>  | 0.6.10                         |
| <b>Release Date</b>   | 20 <sup>th</sup> February 2024 |
| <b>Changes</b>  |                                |
| <ul style="list-style-type: none"> <li>Correctly update the SVC level in the headunit when preset is changed via mObridge DSP</li> <li>Reallow AUTOSAR messaging to ensure volume reply message.</li> </ul> |                                |



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| <ul style="list-style-type: none"> <li>• Ensure no biasing of amp power levels until confirmed on state.</li> </ul> |
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| <b>Version</b>      | 0.6.8   |
| <b>Release Date</b> | 9 <sup>th</sup> February 2024   |
| <b>Changes</b>      |   |
| •                   | Reinstate streamline processing, performance improvements for mono stream processing. |
| •                   | Fixing incorrect volume after factory reset.  |

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| <b>Version</b>      | 0.6.7   |
| <b>Release Date</b> | 7 <sup>th</sup> February 2024   |
| <b>Changes</b>      |   |
| •                   | Slow down power ramping to better handle longer power cabling setups. |

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| <b>Version</b>      | 0.6.6  |
| <b>Release Date</b> | 6 <sup>th</sup> February 2024  |
| <b>Changes</b>      |  |
| •                   | Re-calibrating all speaker gain levels to ensure 0 dB throughput at 0 dB level on mObridge DSP, for stereo and mono inputs, and for woofer and subwoofer channels types. |
| •                   | Fixing incorrect channel mute status for some channels in between restarts.  |

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| <b>Version</b>      | 0.6.5                                       |
| <b>Release Date</b> | 24 <sup>th</sup> January 2024               |
| <b>Changes</b>      |   |
| •                   | Reduce re-introduced amp power on/off pops. |

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| <b>Version</b>      | 0.6.4  |
| <b>Release Date</b> | 24 <sup>th</sup> January 2024  |
| <b>Changes</b>      |  |
| •                   | Remove streamline processing from mono channels to fix rare audio distortion when switching between phone and media sources. |

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| <b>Version</b>      | 0.6.3   |
| <b>Release Date</b> | 18 <sup>th</sup> January 2024                             |
| <b>Changes</b>      |   |
| •                   | Fixing center channel up-mixing occasional periodic tick. |

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| <b>Version</b>      | 0.6.2   |
| <b>Release Date</b> | 16 <sup>th</sup> January 2024   |
| <b>Changes</b>      |   |
| •                   | Further fixes for turn off/on pops.                                       |
| •                   | Fixing inability to recover from over-temperature warning gain reduction. |
| •                   | Adding support for R4 baseboards.   |

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| <b>Version</b>      | 0.6.0  |
| <b>Release Date</b> | 12 <sup>th</sup> January 2024  |
| <b>Changes</b>      |  |
| •                   | Fixing startup/shutdown pops by ensuring that the amplifier is not started until the head unit directs it to on CAN. |

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| <b>Version</b>   | 0.5.3                          |
| <b>Release Date</b>  | 28 <sup>th</sup> December 2023 |
| <b>Changes</b>   |                                |
| <ul style="list-style-type: none"> <li>Fixing inability to change channel gain live with mObridge DSP.</li> <li>Fixing occasional failure to perform firmware update.</li> </ul> |                                |

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| <b>Version</b>   | 0.5.2                          |
| <b>Release Date</b>  | 21 <sup>st</sup> December 2023 |
| <b>Changes</b>   |                                |
| <ul style="list-style-type: none"> <li>Lower boosted voltage biasing volume to better ensure high power channels can keep up when varying voltage.</li> <li>Reinstate center-channel up-mix algorithms, including ADP.</li> <li>Fixing center-channel clicking artifact.</li> <li>Fixing audible pops on channel mute/unmute.</li> <li>Reinstate higher idle boosted rail voltage to 24V. This is needed for the pre-out remote out to work properly.</li> <li>Fixing issue pertaining to centre channel artifacts.</li> <li>Making head-unit bass control the sub channels by default. An option to revert this back to regular bass control will come in a future update.</li> </ul> |                                |

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| <b>Version</b>  | 0.5.0                         |
| <b>Release Date</b>   | 1 <sup>st</sup> December 2023 |
| <b>Fixes</b>  |                               |
| <ul style="list-style-type: none"> <li>Update amplifier controller to tip of master branch</li> <li>Addition of fault-state hiccup'ing</li> <li>Correcting channel limiter (DRC) peak reference voltage to 5.6V</li> <li>Fixing large pop when performing firmware update or factory reset.</li> <li>Reduce gains dynamically when over-temperature warning occurs.</li> <li>Corrections to reset the 0dB gain levels, fixes for gain scaling.</li> <li>Fixing issue pertaining to center-channel default mixing algorithm.</li> <li>Some DSP profiling performance improvements.</li> <li>Update amplifier controller to allow power rail offset via vehicle stereo input volume.</li> <li>Add fade-out of audio when selecting presets.</li> <li>Improvements to reduce the likelihood of pops when resetting the system.</li> <li>Lower under-voltage protection threshold, and low-power mode setting to account for battery voltage dips during vehicle stop-start.</li> <li>Minor fixes for SPI flash device flash verification.</li> </ul> |                               |

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| <b>Version</b>  | 0.4.1                        |
| <b>Release Date</b>   | 4 <sup>th</sup> October 2023 |
| <b>Fixes</b>  |                              |
| <ul style="list-style-type: none"> <li>Add missing amp controller power modes.</li> </ul> |                              |

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| <b>Version</b>   | 0.4.0                           |
| <b>Release Date</b>  | 28 <sup>th</sup> September 2023 |
| <b>Fixes</b>   |                                 |
| <ul style="list-style-type: none"> <li>Update amplifier controller to allow power rail offset via vehicle stereo input volume.</li> <li>Add fade-out of audio when selecting presets.</li> <li>Improvements to reduce the likelihood of pops when resetting the system.</li> <li>Update amplifier controller to tip of master branch</li> <li>Addition of fault-state hiccup'ing</li> <li>Correcting channel limiter (DRC) peak reference voltage to 5.6V</li> </ul> |                                 |



- Fixing large pop when performing firmware update or factory reset.
- Reduce gains dynamically when over-temperature warning occurs.
- Corrections to reset the 0dB gain levels, fixes for gain scaling.
- Fixing issue pertaining to center-channel default mixing algorithm.
- Some DSP profiling performance improvements.
- Fixing incorrect gain offset reset to zero when reducing input volume rapidly.
- Allow device to stay awake when only USB is plugged in (no A2B).
- Minor fixes for SPI flash device flash verification.

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| <b>Version</b>      | 0.3.1  |
| <b>Release Date</b> | 18 <sup>th</sup> July 2023   |
| <b>Fixes</b>        |  |
|                     | <ul style="list-style-type: none"> <li>• Fixing the bootstrap to avoid potential wake issues resulting from mishandling CAN hardware.</li> <li>• Further fixes for phone call handling to ensure phone mode never gets stuck.</li> </ul> |

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| <b>Version</b>      | 0.3.0   |
| <b>Release Date</b> | 7 <sup>th</sup> July 2023   |
| <b>Fixes</b>        |   |
|                     | <ul style="list-style-type: none"> <li>• Addition of CAN message acceptance filtering algorithm to ensure CAN messages are never missed when sent.</li> <li>• Adding amplifier power rail offset according to the input volume.</li> <li>• Fixing full power noise issue when baseboard DAC is in an unknown state.</li> <li>• Mute audio when switching presets to avoid unwanted artifacts.</li> <li>• Remap F150 output channels to correspond correctly to the plug'n'play harness.</li> <li>• Adjust volume mapping table for better DSP gain responsiveness.</li> <li>• Numerous Ford volume decoding and phone call handling improvements to better emulate the original OEM amplifier.</li> <li>• Further fixes for pops on firmware update.</li> </ul> |

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| <b>Version</b>      | 0.1.2   |
| <b>Release Date</b> | 31 <sup>st</sup> May 2023   |
| <b>Fixes</b>        |   |
|                     | <ul style="list-style-type: none"> <li>• Fixing harsh pops on firmware update, manual reset</li> <li>• Fixing slight pops on startup/shutdown</li> <li>• Fixing incorrect loud initial volume</li> <li>• Fixing incorrect default channel mapping</li> <li>• Adding initial support for Bronco Ford variant.</li> <li>• Fix unresponsive volume acknowledgement in headunit</li> <li>• Fix no reply to SVC level change (for preset selection)</li> </ul> |

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| <b>Version</b>      | 0.1.0   |
| <b>Release Date</b> | 4 <sup>th</sup> January 2023  |
| <b>Fixes</b>        |   |
|                     | <ul style="list-style-type: none"> <li>• Initial release</li> </ul> |

