



mObridge → A2B Ford 8.1.1 Amplifier → Firmware Release Notes

Latest Firmware for mObridge A2B Ford 8.1.1 Amplifier:

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

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

Via mObridge Updater:

Download and install mObridge Updater from mobridge.us/firmware-update/

Refer to our website at mobridge.us for further information.

Past Firmware Versions

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

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

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

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

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

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

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

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



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

Version	0.6.17
Release Date	14 th March 2024
Changes	
<ul style="list-style-type: none"> • 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. • Rework sub-woofer control via head unit bass control. Now acts as an offset to current sub-woofer assigned channel gains. 	

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

Version	0.6.10
Release Date	20 th February 2024
Changes	
<ul style="list-style-type: none"> • Correctly update the SVC level in the headunit when preset is changed via mObridge DSP • Reallow AUTOSAR messaging to ensure volume reply message. • Ensure no biasing of amp power levels until confirmed on state. 	

Version	0.6.8
Release Date	9 th February 2024
Changes	
<ul style="list-style-type: none"> • Reinstate streamline processing, performance improvements for mono stream processing. • Fixing incorrect volume after factory reset. 	

Version	0.6.7
Release Date	7 th February 2024
Changes	
<ul style="list-style-type: none"> • Slow down power ramping to better handle longer power cabling setups. 	

Version	0.6.6
Release Date	6 th February 2024
Changes	
<ul style="list-style-type: none"> • 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. 	

Version	0.6.5
Release Date	24 th January 2024
Changes	



- Reduce re-introduced amp power on/off pops.

Version	0.6.4
Release Date	24 th January 2024
Changes	
<ul style="list-style-type: none"> • Remove streamline processing from mono channels to fix rare audio distortion when switching between phone and media sources. 	

Version	0.6.3
Release Date	18 th January 2024
Changes	
<ul style="list-style-type: none"> • Fixing center channel up-mixing occasional periodic tick. 	

Version	0.6.2
Release Date	16 th January 2024
Changes	
<ul style="list-style-type: none"> • Further fixes for turn off/on pops. • Fixing inability to recover from over-temperature warning gain reduction. • Adding support for R4 baseboards. 	

Version	0.6.0
Release Date	12 th January 2024
Changes	
<ul style="list-style-type: none"> • Fixing startup/shutdown pops by ensuring that the amplifier is not started until the head unit directs it to on CAN. 	

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

Version	0.5.2
Release Date	21 st December 2023
Changes	
<ul style="list-style-type: none"> • Lower boosted voltage biasing volume to better ensure high power channels can keep up when varying voltage. • Reinstate center-channel up-mix algorithms, including ADP. • Fixing center-channel clicking artifact. • Fixing audible pops on channel mute/unmute. • Reinstate higher idle boosted rail voltage to 24V. This is needed for the pre-out remote out to work properly. • Fixing issue pertaining to centre channel artifacts. • 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. 	

Version	0.5.0
Release Date	1 st December 2023
Fixes	
<ul style="list-style-type: none"> • Update amplifier controller to tip of master branch • Addition of fault-state hiccup'ing 	

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- Correcting channel limiter (DRC) peak reference voltage to 5.6V
- 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.
- Update amplifier controller to allow power rail offset via vehicle stereo input volume.
- Add fade-out of audio when selecting presets.
- Improvements to reduce the likelihood of pops when resetting the system.
- Lower under-voltage protection threshold, and low-power mode setting to account for battery voltage dips during vehicle stop-start.
- Minor fixes for SPI flash device flash verification.

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

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

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

Version	0.3.0
Release Date	7 th July 2023
Fixes	
<ul style="list-style-type: none"> • Addition of CAN message acceptance filtering algorithm to ensure CAN messages are never missed when sent. • Adding amplifier power rail offset according to the input volume. • Fixing full power noise issue when baseboard DAC is in an unknown state. • Mute audio when switching presets to avoid unwanted artifacts. • Remap F150 output channels to correspond correctly to the plug'n'play harness. • Adjust volume mapping table for better DSP gain responsiveness. 	

- Numerous Ford volume decoding and phone call handling improvements to better emulate the original OEM amplifier.
- Further fixes for pops on firmware update.

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

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