Grace Design m908
Firmware Release Notes

m908 RCU:

Version: 0.90
Date: 10/01/2019

New Features / Changes:

1. Initial Release

Known Issues:

1. See Errata

Version: 0.9.2
Date: 10/22/2019

New Features / Changes:

1. New user messaging queue that will stack multiple messages and display them sequentially to the user with message display order being last to first. Previously if multiple messages were triggered, only the last message was displayed.
2. Workflow operations (edit, save, load, copy, new, import, export, delete) would sometimes result in communication timeout errors and multiple messages being displayed. These transitions have been streamlined.
3. Fixed external PSU status in the factory setup menu

Known Issues:

1. See Errata

Version: 0.9.3
Date: 11/5/2019

New Features / Changes:

1. Fixed issue with the export workflow overwrite prompt not always displaying
2. Fixed issues with handling of corrupted workflow files on USB drive
3. Fixed issues with system messages being cleared by USB drive removal
4. Improved ACU communication timeout error handling

Known Issues:

1. See Errata

Version: 0.9.4
Date: 11/13/2019

New Features / Changes:

1. Enabled RCU speaker icon signal level meter functionality
2. Added PLL lock indication

Known Issues:

1. See Errata

Version: 0.9.5
Date: 11/26/2019

New Features / Changes:

1. Added direct access input offset adjust mode
2. Updated talkback LED to light immediately and flash rapidly when talkback has been activated by the ABC switches, External Talkback switch or a GPIO pin.
3. Fixed input / cue routing conflict messaging

Known Issues:

1. See Errata

Version: 1.0.0
Date: 12/11/2019

New Features / Changes:

1. Enabled meter output routing
2. Disabled speaker icon signal level icons during meter routing.
3. Disabled RCU version display on splash screen to avoid user confusion. RCU version still found in system setup menu.

Known Issues:

1. See Errata

Version: 1.0.1
Date: 1/27/2020

New Features / Changes:

1. Changes made to improve synchronization between remote and main unit.
2. Allows variable peak hold for onscreen meters.
3. Allows 25 Hz bass management crossover frequency.

Known Issues:

Version: 1.0.2
Date: 5/29/2020

New Features / Changes:

1. Added variable number of bands to Room EQ

Known Issues:

Version: 1.0.5
Date: 9/30/2020

New Features / Changes:

1. Added User Button function: Bass Management Bypass
2. Added User Button function: Cue Input Mute
3. GPI triggered functions are indicated on the RCU with a short blink
4. Added Talkback Out "External Fixed" mode
1. Talkback Activation mode is now selectable between "Auto", "Momentary" and "Latching"
2. Duplicate Power Supply error messages do not stack

Known Issues:

Version: 1.0.6
Date: 7/14/2021

New Features / Changes:

1. Add LFE Slope Select menu item
2. Add Unbalanced Input Mode select
3. Add Icons to home screen indicating roomeq and bassman status
4. Add ravenna text for connectors and clock sources
5. Add 4 new sub modes
6. Add support for future features
7. Talkback Switch activation mode text changed from "RCU Activation Mode" to "Activation Mode"

Known Issues:

---

m908 ACU:

Version: 0.9.0
Date: 10/01/2019

New Features / Changes:

1. Initial Release

Known Issues:

1. See Errata

Version: 0.9.1
Date: 10/09/2019

New Features / Changes:
1. Fixed bug preventing selection of ADC as input connector for units with single ADCs
2. New User Templates added to workflow creation

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 0.90

Version: 0.9.2
Date: 10/22/2019

New Features / Changes:
1. Digilink clocksource enabled
2. DSP Stability and crash recovery improved
3. System mutes on workflow change
4. System Clock behavior improved
5. Input switching behavior improved

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 0.9.2

Version: 0.9.3
Date: 11/05/2019

New Features / Changes:
1. Enabled low latency control room and headphone monitor path
2. Enabled low latency cue system
3. Enabled external talkback switch control
4. Enabled ABC User button talkback functionality
5. Fixed DAC stability at 192kHz
6. Fixed noise on ADC input after power-up
7. Fixed communication error when selecting higher number inputs

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 0.9.2 – 0.9.3

Version:0.9.4
Date: 11/13/2019

New Features / Changes:
1. Enabled RCU speaker icon signal level meter functionality
2. Added PLL lock indication
3. Fixed stability of even channels running at 96kHz samplerate
4. Improved jitter tolerance at all samplerates
5. Enabled wordclock termination

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 0.9.4

Version:0.9.5
Date: 12/04/2019

New Features / Changes:
1. Added GPIO functionality
2. When headphones are active in the workflow, illegal output routing to CUE/CR EXT 7/8 is prevented by removing these options from output routing setup. Any existing routes to these channels are disabled.
3. Illegal input routing of ADC1:1/2, bal and unbal as cue inputs are prevented by removing these options from cue input routing setup. Any existing cue input routes from these channels are disabled.
4. Added input summing error messaging for input sync delay mismatch, samplerate mismatch and clocksource mismatch.
5. Added input summing error messaging for ADC1:1/2, bal and unbal hardware conflict
6. Added cue input muting. When cue inputs do not match system samplerate, all cue inputs are muted. Talkback and MON>CUE functionality is still available during cue input muting.
7. Enabled input routing of single source channel to multiple DSP channels

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 0.9.4

Version: 1.0.0
Date: 12/11/2019

New Features / Changes:
1. Enable meter output functionality
2. Added system recovery from corrupted workflow file
3. Fixed headphone output initialization after workflow load and input sync delay changes

Known Issues:
1. See Errata

Compatibility:
1. RCU Version 1.0.0

Version: 1.0.1
Date: 1/27/2020

New Features / Changes:
1. Level Indicator Peak Hold times are user editable
2. The system now disallows all illegal routing
3. Bass Management crossover frequency extends down to 25Hz
4. Fixed bug that deletes Dante Cue routes on power-up.

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **SETUP Mode**
    1. If setup mode is exited with changes discarded (press and hold the setup button), routing changes may not be reverted until the inputs / outputs are re-selected.
3. **Demphasis**
    1. Demphasis is not yet implemented
4. **Input Switching with Variable Sync Delay**
    1. When switching between inputs with sync delays greater than 400ms, the system may unmute prior to flushing all of the audio data from the previous input buffer. This can result in a short segment of the erroneous playback prior to returning to normal operation.

Compatibility:
1. RCU Version 1.0.1

Version: 1.0.2
Date: 2/20/2020

New Features / Changes:
1. Fixed bug causing cue routes to be lost on power cycle
2. Fixed bug preventing clock lock with Avid HDIO/192IO when receiving AES signal without audio.
3. Fixed bug causing USB clock override to be reset to ADAT2 if clock override was last edited parameter upon exiting setup.
4. Fixed phase shift on meter outputs.

Known Issues:
1. **Talkback**
    1. Talkback XLR output does not stay fixed on when talkback output mode is set to <ext mic fixed>.
2. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
3. **SETUP Mode**
    1. If setup mode is exited with changes discarded (press and hold the setup button), routing changes may not be reverted until the inputs / outputs are re-selected.
4. **Demphasis**
    1. Demphasis is not yet implemented
5. **Input Switching with Variable Sync Delay**
    1. When switching between inputs with delays different by more than 100ms, an extended mute followed by a pop may occur.

Compatibility:
1. RCU Version 1.0.1

Version: 1.0.3
Date: 5/29/2020

New Features / Changes:
1. Fixed phase shift on meter outputs.
2. Revised filter architecture for improved low frequency noise performance. Filters are now implemented as fixed-point 64-bit filters. See User Manual Revision J Section 6.3.10 for details regarding system gain structure changes.
3. Solo/Mute behavior is improved when no channels are assigned to the button.
4. Power Supply errors are now reported to the user.
5. GPIO behavior on workflow load is improved.
6. Fixed issue with routing on setup exit without save (previous issue 2.1)
7. Fixed issue with extended mute and pop when switching between inputs with significant differences in input delay. (previous issue 4.1)
8. If using a workflow without subs/LFE, the LFE control parameters are no longer present in the setup menu.
9. Room EQ now allows for variable numbers of bands per channel, up to 85 total bands.

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
    1. Demphasis is not yet implemented
3. **Mon > Cue**
    1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.

Compatibility:
1. RCU Version 1.0.2

Version: 1.0.4
Date: 6/9/2020

New Features / Changes:
1. Fixed bug related to ADAT SMUX functionality.
2. Fixed bug causing workflow USB import to overwrite current workflow.

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
    1. Demphasis is not yet implemented
3. **Mon > Cue**
    1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.

Compatibility:
1. RCU Version 1.0.2

Version: 1.0.5
Date: 9/30/2020

New Features / Changes:
1. Added User Button function: Bass Management Bypass
2. Added User Button function: Cue Input Mute
3. GPI triggered functions are indicated on the RCU with a short blink
4. GPI functions logical OR with Rcu enabled functions
5. Added Talkback Out "External Fixed" mode
6. Talkback Activation mode is now selectable between "Auto", "Momentary" and "Latching"
7. Added Error Diagnostic features

Known Issues:
1. **Talkback**
   1. Talkback XLR output does not stay fixed on when talkback output mode is set to <ext mic fixed>.
2. **Workflow**
   1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
3. **Demphasis**
   1. Demphasis is not yet implemented
4. **Mon > Cue**
   1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.
5. **GPIO**
   1. When GPI is set to "Active High" and no GPI is physically connected, the pull-up resistor on the GPI will cause the GPI to be activated. Scrolling through the GPI functions will then cause each function to get activated, with no apparent way to deactivate the function. The solution is to set the GPI logic to "Active Low" and scroll through all available GPI functions to clear them.

Compatibility:
1. RCU Version 1.0.5

Version: 1.0.6
Date: 10/22/2020

New Features / Changes:
1. Fixed bug with Talkback Output: External Fixed mode being deactivated when talkback is deactivated.

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
    1. Demphasis is not yet implemented
3. **Mon > Cue**
    1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.
4. **GPIO**
    1. When GPI is set to "Active High" and no GPI is physically connected, the pull-up resistor on the GPI will cause the GPI to be activated. Scrolling through the GPI functions will then cause each function to get activated, with no apparent way to deactivate the function. The solution is to set the GPI logic to "Active Low" and scroll through all available GPI functions to clear them. This was introduced in 1.0.5.

Compatibility:
1. RCU Version 1.0.5

Version: 1.0.7
Date: 3/30/2021

New Features / Changes:
1. Add support for Ravenna module.
2. Fixed bug causing crash after >16 days of uptime
3. Fixed GPI "active high" known issue.
4. Disabled assigning a single GPI function to multiple GPI inputs. Users can wire push-buttons in parallel to achieve this behavior.

Known Issues:
1. **Workflow**
   1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
   1. Demphasis is not yet implemented
3. **Mon > Cue**
   1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.
4. **Input Offset Adjustment**
   1. When in summing mode, adjusting the input offset adjustment may change the offset of all selected inputs.

Compatibility:
1. RCU Version 1.0.5

Version: 1.0.8
Date: 8/4/2021

New Features / Changes:
1. Allow summing of ADC1 channels 3-8 with Analog balanced/unbalanced inputs
2. Added new sub modes
3. Added Variable LFE LPF Slope
4. Added Ravenna as a connector option
5. Fixed bug causing LFE Gain to be applied twice to second and third subwoofers
6. Add support for phono module
7. Support independent input offset adjust while in summing mode
8. Fix bug with Negative CR Offset changing HPS level
9. Add support for new ADC cards
10. Various stability and efficiency improvements

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
    1. Demphasis is not yet implemented
3. **Mon > Cue**
    1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.
4. Unbalanced Line Input mode select has polarity reversed.

Compatibility:
1. RCU Version 1.0.6

Version: 1.0.9
Date: 11/17/2021

New Features / Changes:
1. Fixed polarity of phono activation
2. Fixed re-introduction of DSP crash

Known Issues:
1. **Workflow**
    1. When channels are added or removed from a workflow the mute/solo assignments for any higher order channels may be incorrectly assigned and need re-assignment.
2. **Demphasis**
    1. Demphasis is not yet implemented
3. **Mon > Cue**
    1. When monitoring inputs on mon > cue and switching between inputs with different sync delays, a short stutter can be heard on the cue output.

Compatibility:
1. RCU Version 1.0.6