

Project Title: GenVI Dimmer

Software Released by: Gary Pritchard
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Last Modified: 3 July 2023

This document is a cumulative list of bug fixes and feature enhancements for GEN VI family of products.

Reporting Bugs

If you find a bug or feel that we could improve the dimmer, then please let us know. If you find a bug that affects operation or crashes the unit then could you let us know ASAP!!

email techSupport@lscontrol.com.au
phone +61 3 9702 8000

Obtaining Updates

If you wish to be emailed about **GENVI** software updates as they are released, then send an email to the above address and you will be added to the mailing list.

Unified Code:

Due to our policy of continual product improvements the GEN6 now has a new CPU card based on the Ti family of microprocessors. The new CPU card requires different software to the original NXP based cards. The unified code is based on our new v4 platform, hence the major version number jump from 1.xx to 4.xx. Some bug fixes apply to both CPU types and others are specific to one CPU type only, this is notated by the CPU type in brackets (eg. Ti + NXP).

Installation procedure

This task requires a full size SDcard of 16GB (or less) in capacity, formatted as FAT32.

To install a software update, perform the following steps:

- 1) If the dimmer is running version 1.11 or earlier;
 - a) The upgrade will destroy the settings in your GenVI so if desired, save the GenVI configuration to the SD card. Tap **'Config' :: System :: 'Import Export' :: 'Export Config'**
 - b) Reset the GenVI to Factory Defaults. Tap **'Config :: System :: Reset :: Reset To Defaults'**
This is an important step, failure to do so may cause your GenVI to lock up.
- 2) Extract the two update files (GNV_vnnn.bin and GEN6_vnnn.upd) – where nnn is the software version number) from the ZIP file into the root directory of the SD Card. The CPU card will automatically select and use the correct version of software.
- 3) Insert the SD Card into the unit.
- 4) Tap **'Config' :: 'System :: Code Upgrade'**.
- 5) The unit will reset (note that all outputs will be turned off) and the upgrade will start automatically.
- 6) Once complete, the unit will restart automatically.
- 7) Check for satisfactory operation.
- 8) Reload settings from your SD card if updating from v1.11 or earlier and you saved them in step (1). Tap **'Config' :: System :: 'Import Export' :: 'Import Config'**.
- 9) Remove the SDcard.
- 10) N.B. The .upd upgrade file on the SDcard is renamed to a .IMG file after a successful upgrade. This is to prevent repeated upgrades if the SDcard is left in the dimmer. To reuse the SDcard in another dimmer, change the file extension back to .UPG
Alternatively, LOCK the SDcard to prevent the name being changed.

Release: v4.04 Date: 11-May-2023

Reason for the Release: New Software Features and Bug Fixes

New Features:

- Reworked Lock screen UI. It is now possible to set the Lock code independently of the Lock function.
- An About button has been added to the config menu screen. The about info can be accessed from this button, or via the existing status screen button.
- Software upgrades via RDM are now supported, but only on dimmers running Bootloader v2.05 or later (Ti only).
- The Zero Cross detection and Firing Engine have been updated to be even more reliable when running from generators or at extreme low/high voltages and frequency combinations (Ti only).
- Additional diagnostics information added to Service menu
– requires BootLoader v2.05 or later (Ti only).

Bug Fixes:

- The DMX output mimic could occasionally stop responding just after DMX was connected, or the was dimmer reset (NXP only).
- Once a User level PIN code was entered, it could not be removed. It can now be removed using the code 0000.
- A channel set to TruPower mode had a short the delay turning on the relay (Ti only).
- Setting a user PIN code would cause the dimmer to reboot (NXP only).
- Custom curves did not work (Ti only).
- The Zero Cross readings in the Service menu were incorrectly divided by 100 (Ti only).
- The DMX hold time had stopped working since v4.02 (NXP only).
- In certain configurations, changing a channel to AutoPower did not reset the Max level fo the channel. (NXP only).
- Upgrading the firmware via RDM was unreliable (Ti only).
(This functionality is only available of dimmers fitted with the Ti CPU card and bootloader v2.05)
- 3 channel variants turned off the outputs after 1 second at 100% level, due to no TruPower relay being installed (Ti only).
- 3 channel variants showed 6 channels in the DMX patch menu.
- The DMX hold time was recalled correctly after a power cycle (NXP only).
- The bar graph display froze the output level for channels with a Phase Failure instead of forcing the level to zero.

Known Existing Problems:

- None.

Components:

- GEN6_v4.04.upd (for Ti CPU cards)
- GNV_4.04.img (for NXP CPU cards)

Release: v4.03 Date: 14-Nov-2022

Reason for the Release: Support for new Firing Card, New Software Features and Bug Fixes

New Features:

- Added support for RevB firing cards for Tm CPU card. The older NXP CPU cards are not compatible with the new RevB firing cards.
- The Owners Name function now permits numeric characters.
- The About menu now displays the CPU type and Firing card version.
- RDM Ident timeout added. If the user forgets to turn off Ident, the GENVI will do it automatically.
- RMD Ident now controls individual channels when a sub-device is selected.

Bug Fixes:

- An RDM request for the DMX Personality description could respond incorrectly.
- Setting the dimmer curve via RDM failed using a DMXcat device.
- Setting min/max levels via RDM did not always work.
- The DMX hold times were not saved correctly.
- The RDM IsFactoryDefaults and SetFactoryDefaults commands were not implemented correctly.
- Other minor RDM issues.

Known Existing Problems:

- None.

Components:

- GEN6_v4.03.upd (for Ti CPU cards)
- GNV_4.03.img (for NXP CPU cards)

Release: v4.02 Date: 03-Dec-2021

Reason for the Release: Unified Code, New Features and Bug Fixes

Unified Code:

This is the first version of GENVI software that is available for both CPU variants and has all software features and GUI updates implemented in both versions.

The unified code is based on our new v4 platform, hence the major version number jump from 1.xx to 4.xx

New Features:

- The Dim/TruPower menu now allows selected channels to be changed to Dimming, Switch or Auto Power mode. The source is now automatically chosen as part of the selection (Ti + NXP).
- There is now a Cancel button in the TruPower configuration screen (Ti + NXP).
- The access levels for the menu system have been overhauled. The User and Owner Login levels are now redundant and have therefore been removed from the Login screen (Ti + NXP).

Bug Fixes:

- The Auto Power function did not force the channel to 100% if a maximum level below 100% was set (Ti + NXP).
- Import / Export did not contain the constant speed fan information (Ti).
- The Output display levels did not go to zero when the unit was in an over- temperature state even though the physical outputs were turned off (Ti).
- The Auto Power circuits were not reinstated on power up (Ti).
- The DMX and Auto Power hold times were not restored after a power cycle (Ti).
- Under certain circumstances it became impossible to reset a channel from Auto Power to Dimming mode unless a total reset was performed (Ti + NXP).
- Importing a custom logo could cause the unit to reset (Ti).
- The cursor in the Owners Text entry screen did not change position correctly making it impossible to add text of more than one character (Ti).
- 3 and 1 channel GEN6 dimmers do not have a TruPower option. Any reference to TruPower in these models has been removed (Ti + NXP).
- In some very rare cases, curve loading could fail which would result in random output levels as input level changed (Ti only).
- The zero-cross detection and firing engine have been tweaked for improved operation when running from generator power sources (Ti).

Known Existing Problems:

- None.

Components:

- GEN6_v4.02.upd (for Ti CPU cards)
- GNV_4.02.img (for NXP CPU cards)

Release: v4.01 Date: 25-May-2021 (for Ti CPU cards only)

Reason for the Release: Bug Fixes

Bug Fixes:

- The DMX line was terminated incorrectly.
- The terminology on the DMX Terminate button was incorrect.
- DMX terminate state was not saved correctly in the E2Prom.
- RDM Get/Set Label did not work for an ALLCALL.

New Features:

- The Logo and Owner name handling was improved. Messages changed to make user aware that they need to set name and logo before pushing LOCK. Once LOCK has been pushed, the name and logo cannot be changed without contacting the factory. This is for security reasons.

Known Existing Problems:

- None.

Components:

- GEN6_v4.01.upd

Release: v4.00 Date: 21-May-2021 (for Ti CPU cards only)

Reason for the Release: First Release for Ti CPU cards. Not released to public.

Note that the software release version has purposely been set to V4 to distinguish it from previous version of code meant for the older CPU card.

Known Existing Problems:

- None.

Components:

- GEN6_v4.00.upd

All versions below are for NXP CPU only

Release: v1.22 Date: 10-September-2020 (for NXP CPU cards only)

Reason for the Release: Bug Fix

Bug Fix:

- Output circuits could flicker in the presence of RDM signals.

Known Existing Problems:

- None.

Components:

- GNV_v1.22.bin

Release: v1.21 Date: 22-July-2020

Reason for the Release: Enhancements and Bug Fixes

New Features:

- The Logo and Owner name handling was improved. Messages changed to make user aware that they need to set name and logo before pushing LOCK. Once LOCK has been pushed, the name and logo cannot be changed without contacting the factory. This is for security reasons.

Known Existing Problems:

- None.

Components:

- GNV_v1.21.bin

Release: v1.20 Date: 19-June-2020

Reason for the Release: Enhancements and Bug Fixes

New Features:

- The RDM functionality has been extended to operate with HOUSTON X
- The owners name and logo security handling has been improved.

Bug Fixes:

- The RDM timing was incorrect in many cases. This may have caused problems interacting with 3rd party RDM controllers.
- Some RDM messages could sometimes be seen as DMX, potentially causing flickering.
- The Import/Export function was broken.
- Logo Import did not always work.
- Importing a logo would clear all the saved setup. This would not be seen until the next reset or power cycle.
- Infinite hold time on AutoPower did not hold indefinitely.

Known Existing Problems:

- None.

Components:

- GNV_v1.20.bin

Release: v1.11 Date: 24-Aug-2018

Reason for the Release: Bug fixes

New Features:

- None

Bug Fixes:

- When running the built-in chase function, the dimmer could randomly restart.

Known Existing Problems:

- None.

Components:

- GNV_v1.11.bin

Release: v1.10 Date: 07-Jun-2018

Reason for the Release: Bug fixes and New Features

New Features:

- The SD card reader has been revamped to make it more reliable and extended so that it can now read exFAT formatted cards.
- The DMX update rate has been increased. Originally it was delayed by a frame to ensure there were no errors but we got complaints of it being too slow on consoles that have slow DMX rates.
- An upgrade file is now checked for and if present an upgrade button is presented. Previously the dimmer would reset regardless of whether there was a suitable file on the SD card or not.

Bug Fixes:

- If anything was pushing on the touch screen during power up, the dimmer would interpret that to change the LCD screen driver. This was a shortcut included when our supplier changed their component. This function has now been removed as it is only needed if the screen on a GenVI card is changed and the replacement screen is different to the original.
The new method to cope with this situation is to include a file on an SD card that is read during power up. The contents of this file can change the LCD driver being used.
The wrong LCD driver is characterised by a blank white screen – the dimmer itself continues to operate.
To change the LCD driver:
 - 1) Create a text file on an SD card called GNV_LCD.CFG
 - 2) To change the LCD to the ST7781 driver make the first line of this file “7781”
 - 3) Or to change the LCD to the ILI9341 driver make the first line of this file “9341”
 - 4) Or if you don’t which driver is being used but you just want to use the other one then, make the first line of the file “LCD-SWAP”
 - 5) Insert the SD card into the GenVI and power the dimmer up. The dimmer will detect the presence of this special file and make changes to the LCD driver according to what the file contains as per the previous steps.
 - 6) Note that the file will be deleted off the SD card when it has been read. Make sure the SD card is writable (not locked).
- Multiple Alarms on RDM could cause the unit to crash.
- On the View DMX screen, the message that not all DMX slots are being received was not always cleared correctly.
- The CCT timing was set to a high value giving the appearance of slow response on fast lamps. It has been reduced to operate now only over 4 half cycles.
- Auto Power timeout set to Infinite would in fact timeout at some random time.
- Labelling on the display for 3-channels dimmers was incorrect
- The touch screen could lock up occasionally. This was a very random event that would only possibly happen every 49 days. Any dimmer that was reset (powered off and on) within this timeframe would never see this issue.

Known Existing Problems:

- None.

Components:

- GNV_v1.10.bin

Release: v1.09 Date: 15-Dec-2017

Reason for the Release: Internal use only

Release: v1.08 Date: 15-Dec-2015

Reason for the Release: Bug fixes

New Features:

- None.

Feature Upgrades:

- None.

Bug Fixes:

- The lights would flicker every 71.5 minutes due to a timer overflow. Fixed now.
- Maximum Zero Cross pulse width allowed to match maximum setting allowed in the UI.
- DMX scene now fades out after DMX is lost and Hold Time has been reached.

Known Existing Problems:

- None.

Components:

- GNV_v1.08.bin

Release: v1.07 Date: 29-Jul-2015

Reason for the Release: Bug fixes

New Features:

- None.

Feature Upgrades:

- None.

Bug Fixes:

- Disabled support for 3-channel models. Some early dimmers were not correctly configured, and when using previous version of software, may incorrectly detect the number of channels (12-channel units becoming 3-channel, and 6-channel units becoming 12-channel). This bug fix prevents this from happening. Release v1.06 is good for 3-channel models, as they are all correctly configured.

Known Existing Problems:

- None.

Components:

- GNV_v1.07.bin

Release: v1.06 Date: 18-May-2015

Reason for the Release: Bug fixes

New Features:

- None.

Feature Upgrades:

- Constant fan speed operation changed. At high temperatures, fan forced to full.
- Fan speed indicator on the main page now displays a 'c' next to the fan if the fan is operating at constant speed.

Bug Fixes:

- When upgrading to v1.05 from an earlier release, the software could end up in a permanent reset loop.

Known Existing Problems:

- None.

Components:

- GNV_v1.08.bin

Release: v1.05 Date: 29-Apr-2015

Reason for the Release: New features

New Features:

- User confirmation now needed when changing channel configuration from TruPower to Curve
- Added quick TruPower/Dimming configuration page
- Support for 3-channel dimmer variant added
- Added 'Custom Logo' import from SD Card
- Added 'Custom Curve' import from SD Card
- Owner Text is now permanently locked (when set)
- Implemented Import / Export to SD Card
- Implemented RDM sub-devices
- Zero Cross Monitoring added to the Service page
- Zero Cross limits modification added to the Service page
- Zero Cross limits adjusted to include 60Hz waveform

Bug Fixes:

- 8/16-bit dimming now permanently stored in EEPROM.

Known Existing Problems:

- None.

Components:

- GNV_v1.05.bin

Release: v1.04 Date: 07-Aug-2014

Reason for the Release: Bug Fixes

Bug Fixes:

- Output channels configured as 'DMX Only' now hold last DMX level indefinitely after DMX loss.
- Output flicker (misfiring) at low levels fixed.

Known Existing Problems:

- None.

Components:

- GNV_v1.04.bin

Release: v1.03 Date: 01-Jul-2014

Reason for the Release: Support for 6-channel variant

- Added support for 6-channel dimmer variant.
- Non-Dim curve renamed to TruPower (Channel Configuration page).

Bug Fixes:

- Chaser page initialisation improved.

Known Existing Problems:

- None.

Components:

- GNV_v1.03.bin

Release: v1.02 Date: 12-May-2014

Reason for the Release:

Bug Fixes:

- Inverted DMX Termination pin logic.
- Implemented failsafe handling of temperature sensors, in an unlikely scenario that all sensors fail.

Known Existing Problems:

- None.

Components:

- GNV_v1.02.bin

Release: v1.01 Date: 26-Jan-2014

Reason for the Release:

Bug Fixes:

- Version number corrected.
- Inverted GPO pin logic.
- Channel Buttons now show correct lamp type configured.
- Channel Edit dialog could not be applied after viewing Help information. Fixed now.
- Fades sometimes failed to complete. Fixed.
- Corrected fade out of outputs on lost DMX.
- Added an alarm when incorrect firing card configuration is detected.
- Master Level now correctly controls fade scene.
- Fixed button operation after viewing Help display in DMX Backup Scene edit dialog.
- Improved detection and access efficiency of v2.x SD cards behaving as v1.x SD cards (needing physical addresses rather than sector numbers).

Known Existing Problems:

- None.

Components:

- GNV_v1.01.bin

Release: v1.00 Date: 13-Jan-2014

Reason for the Release:

First Public Release.

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