

## Project Title: Redback Wallmount & LDT

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This document is a list of software changes for Redback Wall & LDT Dimmer firmware.

### 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 dimmer then could you let us know ASAP!!

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

### Obtaining Updates

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

## 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. Copy the software release (file named RBW\_vNNN.bin where 'NNN' is the software version number) into the root (top level) directory of the SD Card.
2. Insert the SD Card into the unit.
3. Tap the touchscreen to activate the menu system. Go to '**Config :: System :: Code Upgrade**'.
4. The unit will reset (note that all outputs will be turned off) and the upgrade will start automatically.
- 5. Once complete, the unit will start automatically.**
6. Remove the SD Card from the unit.

**As of v2.00 the Redback Wallmount and LDT products used common source code, but the software was released as two different variants, one for each product.**

**As of v2.10 the software was merged into a single build and both variants now run the same software.**

**These software release notes are merged from the two original documents, therefore some software versions listed below may not have originally been released for both products.**

## Release: v2.20

Date: 28-Mar-2023

### Description:

First public release of Unified Code, Bug fixes and feature updates

### Feature Updates:

- Unified code. Redwall and LDT now run the same software.
- Improved Zero-Cross detection. The ZC software has been completely rewritten to enable the dimmer to better cope with distorted mains power waveforms. This distortion is a relatively new phenomenon, caused by the increasing number of Switchmode Power Supplies and Solar Inverters in use. These devices distort the mains waveform in ways that was unheard of ten years ago when the products were designed. The new software allows the dimmers to quickly adjust for changes in the waveform, preventing flickering and phase failure alerts. This also results in a more stable output (lower flicker) when using lamps that respond quickly to voltage changes (i.e. LED fixtures).
- System configuration is now manually set in the Service menu. After the first update from v1.xx to v2.xx you may need to manually set the configuration.

**This requires an SDcard with an LSC service authorisation file. If the SDcard is required, a factory reset must also be performed and all configuration data will be lost.**

Please contact [techsupport@lsccontrol.com.au](mailto:techsupport@lsccontrol.com.au) for a service authorisation file.

a) Tap the [Config] button to enter the menu system.

b) Press the lock/unlock button in the bottom left corner.



c)

d) Press the [Unlock] button next to the Service level, enter the service PINcode and press [Unlock].

e) Press [Exit] to return to the main menu. Then press [System], then [Service], then [Configure].

f) Make sure that the unit is configured with the correct number of channels, Dim/Relay/Combo and LDT/Redwall types. Please note that the 'greyed out' buttons are the selected buttons.

The config info is also displayed at the top of the screen as text.

g) If the configuration is correct you can cancel the operation. If the configuration is incorrect, please change it and the dimmer will reboot.

- System diagnostics screen now shows voltages being received from remote wall-plates to aid in servicing;
- A Wall-plate menu has been added to the Edit Memory area;

### Bug Fixes:

- Channels recently faded to zero could flicker when another channel was fading to zero.
- Configuration can now be set from the LSC Service menu because in some circumstances the unit did not correctly calculate what type it is. (Menu is only accessible to LSC staff and dealers).
- A System reset in an inverted dimmer would cause the screen to lose the invert setting.
- The increment and decrement level buttons stopped working in the v2.03 update
- RDM timing is improved..
- Toggle memories did not work if memory was fading out (but was fine when fading in).

### Known Bugs:

- None

**Versions 2.05 through to V2.16 were never released to the public.**

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**Release: v2.04****Date: 25-Aug-2016**

Description:  
Feature Updates:  
Bug Fixes:  
Known Bugs:

Minor internal updates

**Release: v2.03****Date: 15-Dec-2015**

Description:

Bug fixes and feature updates

Feature Updates:

- Added new WallPlate button function: On.

Bug Fixes:

- Lights flicker every 71.5 minutes – bug fixed.
- DMX Scene now fades out after DMX is lost and Hold Time expired.
- Channels with Minimum Level applied are now drawn correctly on the bar graph after reset.
- Maximum Zero Cross limits updated to 2500uS in the UI.

Known Bugs:

- Dimming is not reliable in presence of some mains tone.

**Release: v2.02****Date: 23-Apr-2015**

Description:

Bug fixes and feature updates

Feature Updates:

- Added support for inverted 12 channel dimmer variant
- Added 'Custom Curve' feature.
- Damping levels labelling changed from 1, 2, 3 to l, m, h (low, medium, high).

Bug Fixes:

- Adapted to work on both 50Hz and 60Hz but not between.
- RDM packet end detection improved.

Known Bugs:

- None.

**Release: v2.01****Date: 21-Nov-2014**

Description: Bug fixes and feature updates

**Feature Updates:**

- Configuration Export/Import to/from SD Card added.
- Individual dimming channels are now presented as RDM sub-devices.
- Added Zero Cross monitoring and adjustment to the Service page

**Bug Fixes:**

- Output channels configured as 'DMX Only' now hold last DMX level indefinitely after DMX loss.
- Corrected RDM Model ID.
- Help text on 'Edit Curve' page updated.
- Default curve set to 'S'.
- 8/16-bit dimming changes now stored into EEPROM.

**Known Bugs:**

- None.

**Release 1.08      Date 06-Aug-2013**

Reason for the Release:	Bug Fix
Bug Fixes:	Cross Fades made dip-less.
Features Upgraded:	None
Known Bugs:	None

**Release 1.07      Date 13-Nov-2012**

Reason for the Release:	Support for new LCD added
Bug Fixes:	N/A
Features Upgraded:	Red-Plate button detect voltage threshold adjusted to improve performance
Known Bugs:	none

**Bootloader Release 1.01   Date 13-Nov-2012**

Reason for the Release:	Support for new LCD added
Bug Fixes:	1. DMX (to other connected dimmers) no longer corrupted while code update in progress 2. Older (2Gig and less) SD cards now work correctly

**Release 1.06      Date 17-Feb-2012**

Reason for the Release:	Performance improvement
Bug Fixes:	N/A
Features Upgraded:	Relay channels are now driven through zero crossing (ie 100% duty cycle)
Known Bugs:	None.

**Release 1.05      Date 7-Nov-2011**

Reason for the Release:	Bug fixes.
Bug Fixes:	Channel flicker (@ 33% /66%)
Features Upgraded:	N/A
Known Bugs:	None.

## **Release 1.04**      **Date 29-Sep-2011**

Reason for the Release:	Bug fixes.
Bug Fixes:	Fan Power Supply PWM control fixed
Features Upgraded:	N/A
Known Bugs:	None.

## **Release 1.03**      **Date 5-May-2011**

Reason for the Release:	Bug fixes.
Bug Fixes:	Card type/location detection fixed (on 24 channel and 24 channel rotated)
Features Upgraded:	N/A
Known Bugs:	None.

## **Release 1.02**      **Date 15-April-2011**

Reason for the Release:	Bug fixes.
Bug Fixes:	<ol style="list-style-type: none"><li>1. Output order was incorrect when dimmer used in rotated mode.</li><li>2. Memory fade rate was affected by UI activity</li><li>3. Wall plate setup small bugs fixed.</li><li>4. Level locking behaviour fixed</li></ol>
Features Upgraded:	N/A
Known Bugs:	None.

## **Release 1.01**      **Date 24-Feb-2011**

Reason for the Release:	Bug fixes.
Bug Fixes:	<ol style="list-style-type: none"><li>1. DMX Termination logic inverted to match switch states.</li><li>2. 12 channel dimmers incorrectly detected the order of cards fitted.</li><li>3. Main display doesn't freeze any more after accessing help information.</li></ol>
Features Upgraded:	N/A
Known Bugs:	None.

## **Release 1.00**      **Date 15-Feb-2011**

Reason for the Release:	First public release.
Bug Fixes:	N/A
Features Upgraded:	N/A
Known Bugs:	None.

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