red l**i**n

TECHNICAL NOTE TN0102

Title: Backlight Failure

Product(s): VX500, VX500T, TX700T, G308, and G310

Problem Description: Backlight intensity grows dimmer in HMI units with Graphical Interfaces

Cause of the Problem: The backlight intensity growing dimmer over time on the Paradigm Series of graphical interfaces is not considered a product defect, merely a limitation of the components available at the time the units were designed. It is normal for the intensity of the backlight to become dimmer the longer the unit is in use. The backlights used in any Red Lion HMI are the highest quality available at the time of design.

The life expectancy of a backlight is variable by product. The rating on the backlight bulb is based on the number of hours of use before the intensity of the display decreases by 50%.

- The older versions of the Paradigm VX (non S versions) were manufactured with a 10,000-hour rated backlight.
- The Paradigm VX-P (or "enhanced") version of the VX, used the same backlight. However, since these units used a higher backlight current in order to get the desired intensity, the life expectancy of the backlight bulb is more like 7,000 to 8,000 hours.

Beginning in June of 2001, a newer, more advanced, 50,000-hour backlight bulb became available for use with the older VX versions. Any backlight replacements done by Red Lion since that time have had this bulb installed as the replacement.

- The newer versions of the Paradigm VX (S versions) as well as the G308 are manufactured with a 40,000-hour rated backlight.
- The Paradigm TX and the G310C are manufactured with a 50,000-hour rated backlight.
- The G310S (Outdoor version) is manufactured with a 20,000-hour backlight.

Corrective Action: The only way to extend the life of the backlight in the Paradigm units (VX and TX) is to set a backlight timeout.

To set the backlight timeout for the Paradigms, open the Edict database, click File> Terminal Configuration. Enter the number of seconds before the backlight goes off if no keys have been pressed or no touches have been detected on the touch screen.

VX and TX Series Parameters

Name	Value
Runtime Version	Version 4.00 or later
Prevent Database Upload	No
Disable Beeper	No
Display Mode	Normal
Backlight Timeout	1200
Colour Flash Speed	50

OK   Cancel   Help
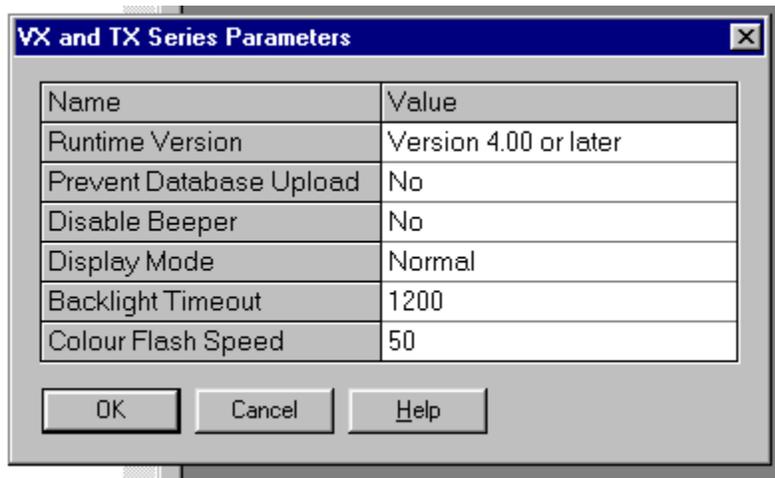
To set the backlight timeout in G3 units, open the units database in Crimson 2 and select the User Interface key. Click Pages on the upper left corner of the page. Enter the number of seconds before the backlight goes off if no keys have been pressed or no touches have been detected on the touch screen.

User Interface

Pages
  Page1

Global Actions
On Startup: None
On Tick: None
On Update: None

Error Recovery
Software Exception: Show GMC After Restart
Watchdog Failure: Show GMC After Restart

CD2 Contents
Include Image Files: No

Display Backlight
Turn Off After: 1200   secs

Maintenance
Purge Unused Fonts   Purge Unused Images

Translation
Select Languages...

Close