

## **P2 Software Changes**

**Version 1.60** Release 2006-5-5. (It shows 1.62A on the display)

The P2 software can also be obtained on PCMCIA card, order code:  
**720071111**

To perform the update, please follow this procedure:

1. Insert the PCMCIA card with the software in the port on the front of the unit.
2. While powering up, hold the WIZARD button,
3. The display should now show "L".
4. Press LOCK to confirm to Load the software.
5. After a couple of seconds, the unit starts programming its Flash memory. The "L" will be flashing and when completed it will show "+"
6. Make sure that the display returns to "L", without any errors.
7. Power off the unit as normal, by holding the POWER key.
8. Remove the PCMCIA card.
9. Power on as normal.

### **Changes from 1.51 to 1.60**

\* New Grid™ Loudness Limit and Loudness Correct Together with broadcasters, broadcast organizations and academic communities, TC has conducted a yearlong investigation into measuring and controlling loudness rather than merely level. P2 offers the new Grid Processor for Realtime control of loudness in Transmission and Ingest. Grid complements and automates loudness control in environments based on recent ITU recommendations as well as Dolby's LM100 meter. (See attached which shows challenging broadcast segments, 30 seconds each, butt edited and measured using a Dolby LM100 meter. 1) Without P2 loudness control. 2) With P2 Grid loudness control).

Grid Loudness Limit and Loudness Correct presets are available in Factory Preset Bank F1. Presets have been tailored to comply with current US, EU, Japan and BBC broadcast standards.

#### **\* New Redundancy Functions**

If digital input is lost, P2 now reverts to analog, internal 48 kHz operation, and lights the Error LED. If digital input is restored, P2 switches back. If digital clock is lost, P2 reverts to internal 48 kHz operation, and lights the Error LED.

#### **\* Lower Latency**

The new Grid Loudness Limiting and Control presets feature even lower latency than before. Realtime control in P2 now takes a mere 2.2 ms (less than 1/10 video frame), so no AV delay compensation is needed. Nevertheless, P2 is capable of adding up to 1 second of delay, so it can

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function as audio compensation while performing its loudness control tasks. The compensation delay may even be adjusted on-line with audio going through, without introducing pitch change or noise artifacts.

### \* New SNMP signaling

P2 now handles SNMP signaling for various errors and warnings, including loss of Sync, Input Silence, Clip etc. Multiple P2's, DB4 and DB8 units can be monitored using the Icon remote software included.

### \* New Yellow/Red Alerts

Better at-a-glance overview through differentiated Yellow (non-critical) and Red (critical) Icon alerts.

### \* Bug fixes

The previous version of software introduced uninterrupted changes between presets. Certain conditions could cause some parameters to be set incorrectly. This has been fixed.

**List of changes from v.1.50 to v.1.51:**(Release date 2003-11-5)  
Absolute phase inversion when bypassed removed.

### **Known Errors in Software 1.50**

**Problem:** Inverts the absolute phase in bypass mode  
**Comments:** (except ana in -ana out when in Bypass mode: Relay)  
**Type:** Bug  
**Priority:** Mid  
**Observer:** HEMID

**Problem:** "Phase Inv L" and "Phase Inv R" buttons on Engine, Main page doesn't work  
**Comments:** Not fully investigated.  
**Type:** Bug  
**Priority:** High  
**Observer:** TL

**Problem:** When using an external fader and the configuration is "Dual Mono" the left channel reacts faster to the external fader than the right channel  
**Comments:**  
**Type:** Bug  
**Priority:** Mid  
**Observer:** JLA

**List of changes from v.1.20 to v.1.50** (Release date 2003-06-19):  
Faster Front Bank preset recall (reduced from 3 s to ½ s).

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Faster preset recall (reduced from 3 s to 1½ s).

New Configuration modes: Sum Mono, Left Mono, and Right Mono

Bug fix: Crashes if changing fast between presets with different clock mode and rate - fixed.

**List of changes from v.1.01 to v.1.20** (Release date 2003-01-14) :

New Presets including:

- International Limiting standards for US, EU, Japan, France, Australia, Canada, UK

- Limiter and Optimizer for Optical LtRt film sound

- Radio STL Optimize

GPI recall of 2, 4 or 8 presets

Preset Upload/Download to PC

PC screen resolution down to 800x600 now supported

Improved Icon performance

Analog Bypass Relay enhancement

Improved Preset change time

Pressing a preset button if there is no preset does not make the meters turn off.

Selftest implementation completed

**Version 1.01 was the original release.**

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