

TC Electronic PLETHORA X5 / X3 Firmware

Updating Instructions:

1. Connect your Plethora X5 to your computer with the included USB cable.
2. Plethora X5 will show up as a mass storage device on your computer.
3. Drag and drop the firmware “.bin” file onto the root of the PLETHORA mass storage device.
4. Disconnect the USB cable once transfer is complete.
5. Power cycle your Plethora for the firmware upload procedure to start.
6. Wait until the update procedure has finished loading.

DO NOT remove the power from your unit whilst the update is in progress.

Note: We recommend disabling spotlight INDEXING and emptying your TRASH folder before updating when using MAC to transfer the “.bin” file to your Plethora unit.

Note: If your unit has 1.0.101 and you want to update to 1.2.18 or newer, then please update to 1.1.55 first.

Please note that to get max benefit from the new effects, you will need the latest version of the TonePrint app that can be found in the app store, google PLAY store or downloaded for MAC or PC here:

<https://www.tcelectronic.com/tonePrints.html>

With best regards from the TC Electronic guitar team!

Version 1.4.3 (19 Oct 2023) for PLETHORA X5 / X3

Dear Customer,

We are happy to announce a new update for the Plethora X5 and X3. FW1.4.3 provides improved control of tempo-based effects, extended MIDI control and some utility upgrades.

We hope that you will enjoy it!

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What's New?

1. Tempo Sync

Synchronize tap tempo for a slot to a global tempo by enabling Tempo Sync on the given slot. Updating the global tempo will update the tap tempo of any slot with Tempo Sync enabled. Updating the global tempo can be done by:

- Updating the tap tempo on a slot with Tempo Sync enabled, using tap tempo as the secondary footswitch function.
- Updating the tempo using the new Tap/Tuner utility pedal.
- Using MIDI CC Tap
- Using MIDI clock sync

While Tempo Sync is enabled for a slot, it is possible to make temporary tempo changes using parameter modifiers, i.e. potmeters, HotKnobz, MASH or expression, after which the tempo will revert to the global tempo.

SETTING > BOARD > TEMPO SYNC

2. Tap/Tuner Utility Pedal

- “Always on” tap tempo-pedal controlling the global tempo.
 - Instantly tap a tempo instead of having to press and hold before tapping.
- Easy access to the tuner via press and hold.

3. Expanded MIDI Features

- **MIDI Clock Sync** – Control the global tempo using MIDI clock sync.
SETTINGS > GLOBAL > MIDI > MIDI CLOCK SYNC
- **CC: Tuner On/Off** – Turn the tuner on and off using MIDI CC 93.
- **CC: Global MIDI Tap Tempo** – “Tap” the global tempo using MIDI CC 92
- **CC: Global Expression** – Control the global expression modifier via MIDI CC 100
 - Yes, this also works on Plethora X3, even though it doesn't have a physical expression input.
- **CC: Control of Individual Modifiers for Each Pedal**
 - Pedal 1
 - Potmeter 1 – MIDI CC 67
 - Potmeter 2 – MIDI CC 68
 - Potmeter 3 – MIDI CC 69
 - MASH – MIDI CC 70
 - Expression modifier – MIDI CC 71

- Pedal 2

- Potmeter 1 – MIDI CC 72
- Potmeter 2 – MIDI CC 73
- Potmeter 3 – MIDI CC 74
- MASH – MIDI CC 75
- Expression modifier – MIDI CC 76

- Pedal 3

- Potmeter 1 – MIDI CC 77
- Potmeter 2 – MIDI CC 78
- Potmeter 3 – MIDI CC 79
- MASH – MIDI CC 80
- Expression modifier – MIDI CC 81

- Pedal 4 (Plethora X5 only)

- Potmeter 1 – MIDI CC 82
- Potmeter 2 – MIDI CC 83
- Potmeter 3 – MIDI CC 84
- MASH – MIDI CC 85
- Expression modifier – MIDI CC 86

- Pedal 5 (Plethora X5 only)

- Potmeter 1 – MIDI CC 87
- Potmeter 2 – MIDI CC 88
- Potmeter 3 – MIDI CC 89
- MASH – MIDI CC 90
- Expression modifier – MIDI CC 91

4. BPM Adjustment of Last Tapped Tempo Using Encoders

Make fine adjustments to a tapped tempo using either encoder.

5. Restore Points

Create, load, export and import restore points, allowing you to return your Plethora X5/X3 to a known state.

SETTINGS > GLOBAL > RESTORE POINT

Warning: Applying or importing a restore point will overwrite all user content (i.e. stored TonePrints, boards, settings, etc..) and will change the firmware version to the version used in the restore point. Use these features with caution.

- Create new restore point: Create a restore point and save it on your Plethora X5/X3.
- Apply latest restore point: Apply the locally stored restore point (if any is saved).
- System export: export a restore point. This will reboot the device, and export a file to the USB drive, which can be saved and used for a future system import.
- System import: Import and apply a restore point. Note that this will overwrite any locally stored restore point. To access this feature, save a file with the filetype “.restore” to the Plethora USB drive and reboot the device. Upon reboot, the “System import” option will be available from the “Restore point” menu.

Enhancements/Bug Fixes:

- Fixed bug where mapping Hot Knobz to multiple delay times with tap tempo enabled, followed by vigorous knob-tweaking would cause the unit to crash.
- Fixed bug where MIDI CC messages sent immediately after a board change would be discarded.
- Pipeline Tap Tremolo: Fixed bug where latter bars would not be correctly disabled, when disabling bars 2 or 3.

Version 1.3.11 (03 Mar 2022) for PLETHORA X5

What's New?

Enhancements/Bug Fixes:

- Modulation and low end fixed on Alter Ego and Flashback II delay effects.
- Modulation subtype ‘vibrato’ fixed on Corona Chorus and Vortex Flanger.
- Vibrato ramp reenabled on alter ego, fb2, hof2, sub’n’up and viscous vibe.
- On FW 1.3.6 Flashback II and Alter Ego would automatically limit feedback to 80% when disengaged in buffered bypass mode to avoid self oscillation.
- It will now respect the feedback settings when above 80% and can achieve self oscillating trails when bypassed, if you do so desire.
- Fast toggling between play and edit modes no longer slows UI.
- Improved stability when changing boards under heavy load.

Version 1.3.6 (13 Jan 2022) for PLETHORA X5

What's New?

Enhancements/Bug Fixes:

1. PEDALS

We've included the addition of the Alter Ego Vintage Echo pedal which can be found on the EFFECTS list in EDIT mode.

2. CONTROLS

Reverse the signal chain order display from 'Left > Right' to 'Left < Right' via the settings menu.

Note: We've also added an IN and OUT indicator to the screens in PLAY mode to illustrate which way you have it set.

3. HOT KNOBZ GRAPHICS

Added new UI graphics to show which pedals have HOT KNOBS assigned and give visual feedback when tweaking in PLAY mode.

SETTINGS > BOARD > HOT KNOBZ

4. UPGRADED EXP

External expression pedals connected to the EXP input for use as a volume pedal or parameter modifier experience faster response, better tracking and higher resolution.

SETTINGS > BOARD > EXP ASSIGNMENT

5. UPGRADED MIDI

Plethora X5 responds faster to incoming MIDI signals.

6. FASTER BOARD CHANGING

Experience faster load times and response when switching BOARDS.

7. NEW BYPASS MODE

We've added a new bypass mode BUFFERED / NO TRAILS which gives buffered bypass to avoid any "true bypass clicks" but cuts trails from pedals such as Flashback Delay and Hall of Fame reverb when they are disengaged.

SETTINGS > GLOBAL > PRODUCT SETTINGS > BYPASS TYPE > BUFFERED / NO TRAILS

Enhancements/Bug Fixes:

- Tempo indicator renewed between delay Toneprints changes
- Better UI responsiveness using potmeters in edit mode
- UI tranquillity: No more blinking icons and sloppy redrawing between states
- Extensive signal processing to make pedals sound even better
- Shaker vibrato ramp time
- Viscous Vibe Toneprints updated
- PX5 Flashback 2 feedback not disabled when TpFx is bypassed
- Tape delay 8. and 4+8. subdivision confusion when using MASH
- Using “live” modifiers (Hot Knobz, MASH, expression pedal) and how they cleanup when disengaged or unplugged. When disengaged the effect should return to normal. The modifiers are prioritized like the following (highest to lowest): Expression pedal, MASH / Ramp, Hot Knobz, Pots
- Fixed, Set EXP Pedal from modifier to volume resets all hotknobs
- Glitch when quick swapping effects
- UI glitches in general
- Reduced clicks and pops in general

Version 1.2.18 (18 Dec 2020) for Plethora X5

Dear Customer,

We are proud to bring you the biggest update yet for your Plethora X5 TonePrint Pedalboard. FW1.2 has new pedals, new TonePrints, new controls, expanded midi features, new cab sims and a whole host of optimizations for better performance.

Enjoy!

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What's New?

Enhancements/Bug Fixes:

1. PEDALS

We've included 3 new pedals for your Plethora with this update which can be found on the EFFECTS list in EDIT mode.

- **Viscous Vibe** – with traditional RAMP as the default 2nd FS function. You can change this for MASH by navigating to the 2nd FS function in the settings menu at the bottom of the effects list.

SETTINGS > BOARD > 2ND FSW FUNCTION

- **Helix Phaser** - complete with MASH functionality
- **Tape Deck Looper** – new ram based looper with record and playback time of up to 40 seconds in stereo and 80 seconds in mono

2. CONTROLS

- **HOT KNOBZ** – lets you assign each of the 3 black knobs on Plethora X5 to simultaneously control any/all pedal parameters on your BOARD, for real-time tweaking in PLAY mode.

Touch and feel your effects. This is a BOARD level setting and can be found at

SETTINGS > BOARD > HOT KNOBZ

- **BOARD UP/DOWN** – If you're not a fan of triple tap then here's an easier way to navigate through your BOARDS with a single dual footswitch press.

- Simultaneously press footswitch 1+2 for BOARD DOWN

- Simultaneously press footswitch 2+3 for BOARD UP

- While the board number is displayed on screen you can continue to press footswitch 3 or footswitch 1 for navigating UP and DOWN respectively.

- This is a GLOBAL level setting and can be found at

GLOBAL > PRODUCT SETTINGS > FSW BOARD DOWN/UP

Note: De-activate this setting to enable QUICK SWAP

- **HOT KNOBZ** – lets you assign each of the 3 black knobs on Plethora X5 to simultaneously control any/all pedal parameters on your BOARD, for real-time tweaking in PLAY mode.

Touch and feel your effects. This is a BOARD level setting and can be found at

SETTINGS > BOARD > HOT KNOBZ

- **CREATE/DUPLICATE** – If Plethora has empty board slots between BOARDS, you will now be given a choice of where to put your new board when using CREATE or DUPLICATE.

- **Note:** To CREATE a new BOARD or DUPLICATE your current BOARD, press the BOARD toggle switch UP when in EDIT MODE.

- **Note:** To DELETE or CLEAR your current BOARD, press the BOARD toggle switch DOWN in EDIT MODE.

3. EXPANDED MIDI FEATURES

- **MIDI channel select** – Select which MIDI Channel your Plethora receives and listens to
SETTINGS > GLOBAL > MIDI > CHANNEL SELECT
- **MIDI PC** - You can directly recall any BOARD on PLETHORA by sending it a PC (Program Change) message with the corresponding number
- **MIDI CC** - Updated CC control mapping for following items
 - BOARD UP/DOWN
 - PEDAL 1 – 5 (Engage/Bypass)
 - HOT KNOBZ (Also allows remote control of parameter knobs in EDIT MODE)
 - Looper Controls
- **MIDI CC MAPPING** - For a complete mapping table of all MIDI CC controllable features, navigate to
SETTINGS > GLOBAL > MIDI > CC TABLE

4. NEW CAB SIMS

Added 9 new speaker cab simulations using a proprietary method, unique to Plethora X5. These cab sims let you transform your pedalboard into a DI ready rig for connection to a PA or recording interface.

- Jose 30 4x12
- Vintage 4x12
- Creamy 4x12
- 65 4x12
- Greenery 4x12
- Bluey 2x12
- Creamy 1x12
- Golden 1x12
- BASS 1x15

This is a GLOBAL setting and the CAB SIM will always be on, at the end of Plethora's signal chain, whilst activated. To select a cab model and activate/deactivate, navigate to
SETTINGS > GLOBAL > PRODUCT SETTINGS > CAB SIMULATION

Enhancements/Bug Fixes:

- When a TonePrint is deleted from your TonePrint list on the Plethora X5 unit, BOARD's with pedals which use that TonePrint, will retain their current settings instead of reverting back to default pedal TonePrint. – No change in sound of existing BOARD's
- New warning menu for Factory Reset in **GLOBAL > SERVICE > FACTORY RESET**
- General performance improvements and bug-fixes
- Faster Board switching
- Modulation block issues in several effects fixed
- Quick swap now retains bypass state of pedal when swapping
- Plethora X5 reboots on selecting effect and turning Effect encoder simultaneously bug - fixed
- Switch between USB and Bluetooth connection without needing to reboot
- Quintessence bypass gain bug – fixed

Version 1.1.55 (09 Nov 2020) for PLETHORA X5

What's New?

Enhancements/Bug Fixes:

- Bug fix related to auditioning artist toneprints via TonePrint app
- Various improvements under the hood and performance related optimizations

Version 1.1.52 (09 Nov 2020) for PLETHORA X5

What's New?

1. MIDI CC – SLOT BYPASS CONTROL

The foot switches of your Plethora can now be remote controlled via Midi using CC to BYPASS and ENGAGE the pedals on your board.

CC 102 = FS1

CC 103 = FS2

CC 104 = FS3

CC 105 = FS4

CC 106 = FS5

CC Values

0-63 = **Bypass**

64-127 = **Engage**

Enhancements/Bug Fixes:

- Fixed bug where tuner did not work on empty board in true bypass mode
- Protect board load if a Toneprint is corrupt
- Toneprint audition data gets cleaned on startup
- Ensure correct formatting on USB disk
- Ensure BT operation after reset/restart
- Ensure mobile app connection is possible after reset/restart

Version 1.1.43 (15 Apr 2020) for PLETHORA X5

What's New?

1. CHROMATIC GUITAR TUNER

Hold TONEPRINT push encoder to enter tuner mode.

2. TRIPLE CLICK FEATURES

Triple click board up/down and tuner selection feature can be enabled/disabled in **SETTINGS/GLOBAL**

3. BOARD ORGANIZER

New board organizer in app let's you reorder your boards and rename them. All boards now sync with the TonePrint app on app connection.

Enhancements/Bug Fixes:

- Tap Tempo is not reset when changing toneprint within the same effect
- Fix true bypass in edit mode Triple step board switch is funky when having tap-tempo FSW on FSW 1 or 2
- Level drop of Quintessence harmoniser (bypass versus 100% dry MIX) - fixed
- List of tone prints is visible after clearing board
- MimiQ output level too low - fixed
- Noise gate routing issue - fixed
- Pedal duplicates toneprint effect or freezes when toggling fast between to FSW fast and have the app connected – fixed
- Level boost of Brainwaves Pitch shifter's wet signal – fixed