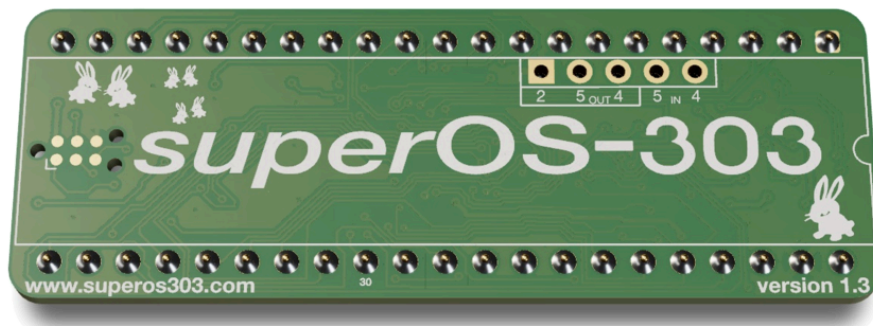


superOS-606

OWNER'S MANUAL



CONTENTS

INTRODUCTION

1	ABOUT SUPEROS-606
2	THE PANEL
3	POWER-ON AND MEMORY

BASIC COURSE

1	SELECTING AND CLEARING PATTERNS
2	WRITING A PATTERN
3	ACCENT
4	TAP WRITE AND CHASE DELETE
5	PLAYING AND CHAINING PATTERNS

INTERMEDIATE COURSE

1	THE FUNCTION TOOLS
2	LENGTH AND SECTIONS
3	BAR-RESET AND POLYMER
4	SCALE AND SWING
5	PROBABILITY
6	RATCHET
7	COPY, TRANSFORM AND GENERATE

ADVANCED COURSE

1	LIVE TOOLS
2	TRACKS
3	CONFIG MENU
4	MIDI AND SYNC
5	PLAYING WITH USB CONNECTED
6	STOCK MODE

REFERENCE

1	FIRMWARE UPDATE
2	WEB PATTERN EDITOR
3	QUICK REFERENCE
4	SPECIFICATIONS

PRECAUTIONS:

Installing firmware or modifying your instrument is done at your own risk. Back up your patterns from the web editor before updating, and do not switch the unit off during an update unless the update has already failed. We are not responsible for damage to your instrument, loss of data, or loss of value of vintage hardware caused by installing, modifying, or using this firmware.

INTRODUCTION

1 ABOUT SUPEROS-606

superOS-606 is replacement firmware for the TR-606. It runs on the SuperOS CPU board, which plugs into the socket of the original CPU. It drives the 606's own circuits unchanged: the panel, the LEDs, the TEMPO clock and the voice board. The drums sound exactly like a stock 606.

Pattern Write, Pattern Play and the two Track modes work the way you know them. On top of that, the **FUNCTION** button opens a set of tools: patterns of up to 64 steps, a loop length for each voice, polymeter, swing, probability, ratchets, live mutes, reslicing, an arpeggiator and play direction.

The Mode and Instrument dials keep their usual jobs. Everything new is reached with **FUNCTION** and the step buttons, so nothing on the panel changes meaning.

superOS-606 adds MIDI in and out, over the MIDI jacks and over USB-C. It can follow MIDI clock, play its voices from MIDI notes, and work with the web pattern editor on this site. It can also boot the 606's original program instead (see Stock Mode).

2 THE PANEL

A. CONTROLS

CONTROL	WHAT IT DOES
STEP 1–16	Steps when writing; patterns when selecting; tools and settings in the menus
RUN/STOP	Starts and stops the sequencer
WRITE/NEXT	Tap write; adds patterns to tracks; works as a shift key in some tools
FUNCTION	Opens the tools (Pattern Write) and, with PATTERN CLEAR, the Config menu
PATTERN CLEAR	Erases patterns, steps and track entries
PATTERN GROUP	Switches between group I and II, or pages through 16-step sections
Mode dial	Pattern Write, Pattern Play, Track Write, Track Play
Instrument dial	The voice to edit; in the Track modes, the track number 1–8
SCALE switch	Read only inside some tools (see Scale and Swing)
TEMPO knob	Sets the tempo when the 606 runs on its own clock

FUNCTION + **STEP** means: hold the first control, then press the second. A tap is a short press and release.

B. THE INSTRUMENT DIAL

The first position is the accent track. The other seven are the drum voices. Several tools also use steps 1–8 in this same order.

POSITION / STEP	INSTRUMENT
1	Accent (AC)
2	Bass drum (BD)
3	Snare drum (SD)
4	Low tom (LT)
5	High tom (HT)
6	Cymbal (CY)
7	Open hi-hat (OH)
8	Closed hi-hat (CH)

3 POWER-ON AND MEMORY

There are 32 patterns, in group I (1–16) and group II (17–32), and 8 tracks. At power-on the unit always starts on pattern 1 of group I.

Patterns, tracks and settings are kept when the power is off. Edits are saved when the sequencer stops, when you turn the Mode dial while stopped, and when you clear a pattern. Settings are saved when you leave the Config menu. There is no save button to remember.

NOTE:

Edits made while the sequencer runs are held until it stops. Stop the sequencer before you switch the unit off, or the last edits are lost.

These live settings are not saved and reset at power-on: mutes, play direction, the global length, the arpeggiator and the copy clipboard.

BASIC COURSE

1 SELECTING AND CLEARING PATTERNS**WORKS IN** Pattern Write, stopped**A. SELECTING A PATTERN**

Press **PATTERN GROUP** to choose group I or II, then press a **STEP** button to choose the pattern to edit. Its LED blinks in time with the tempo.

B. CLEARING A PATTERN

Hold the pattern's **STEP** button and press **PATTERN CLEAR**. Hold several step buttons to clear several patterns at once. A cleared pattern is empty, 16 steps long, scale 1, with no swing, chances, ratchets or voice lengths.

CAUTION:

Clearing is saved at once and cannot be undone.

2 WRITING A PATTERN**WORKS IN** Pattern Write, running

Steps are written while the pattern plays, so you hear each change as you make it. The step LEDs show the selected voice's steps, with the chase light running over them.

1 Write a simple beat into an empty pattern

	Operation	Result	Notes
1	Set the Mode dial to Pattern Write. With the sequencer stopped, press a STEP button to pick the pattern.	The pattern's LED blinks.	Clear it first if it is not empty.
2	Press RUN/STOP .	The pattern loops; the chase light runs.	
3	Turn the Instrument dial to BD. Press steps 1, 5, 9 and 13.	The bass drum plays on each beat.	Press a lit step again to remove it.
4	Turn the dial to SD. Press steps 5 and 13.	The snare joins on beats 2 and 4.	Each voice keeps its own steps.
5	Turn the dial to CH. Press every odd step.	Closed hi-hat on eighth notes.	
6	Press RUN/STOP .	The sequencer stops and the pattern is saved.	

One pattern is now written.

NOTE:

With the sequencer stopped, the step buttons select patterns instead of steps. Step editing only happens while it runs.

Patterns longer than 16 steps are shown 16 steps at a time. See Length and Sections.

3 ACCENT

WORKS IN Pattern Write, running

Accent is one track for the whole pattern, as on the stock 606. Turn the Instrument dial to the accent position and set steps the same way as for a voice. Every voice that plays on an accented step plays louder, by the amount set with the ACCENT knob.

4 TAP WRITE AND CHASE DELETE

WORKS IN Pattern Write, running

A. TAP WRITE

Press **WRITE/NEXT** in time with the music. The selected voice is written on the step that is playing at that moment.

B. CHASE DELETE

Hold **PATTERN CLEAR**. The selected voice's steps are erased as the chase light passes them, across the whole pattern. Release it when the part sounds right. Other voices are not touched.

5 PLAYING AND CHAINING PATTERNS

WORKS IN Pattern Play

A. SELECTING PATTERNS

Press a **STEP** button to choose a pattern from the shown group, and **PATTERN GROUP** to switch groups. When stopped the change is immediate. While running, the new pattern waits until the playing pattern reaches its end; its LED blinks fast while it waits. The playing pattern's LED blinks in quarter notes.

B. CHAINS

Hold one **STEP** button and press another. All patterns between the two, inclusive, play in order and loop. The chain's LEDs stay lit. A chain picked while running starts after the current chain has played to its end. Press a single step to return to one pattern.

NOTE:

A chain stays within one group. To play patterns from both groups in any order, use a track.

INTERMEDIATE COURSE

1 THE FUNCTION TOOLS

WORKS IN Pattern Write, running or stopped

- **Hold** **FUNCTION**: the step LEDs show the tool map. Lit steps are tools; the open tool blinks.
- **FUNCTION** + **STEP**: opens that tool. Release **FUNCTION**; the panel now works the tool.
- **Tap** **FUNCTION**: closes the tool. Turning the Mode dial closes it too.

The tools exist only in Pattern Write. In the other modes **FUNCTION** does nothing on its own. The Instrument dial picks the voice inside every tool.

STEP	TOOL	DOES
1	Length	Pattern length, voice length, global length
2	Scale / Swing	Step timing and swing
3	Copy	Clear, copy and paste the pattern
4	Transform	Shift, reverse or randomize a voice
5	Probability	Chance that a step plays
6	Ratchet	Repeat a step 2, 3 or 4 times
7	Poly	Bar-reset or polymeter per voice
8	Mute	Mute voices live
9	Reslice	Loop a few steps live
10	Arp	Live drum sequence
11	Direction	Forward, backward, random, ping-pong
12	Generate	Random fill for a voice
13	Save	Lit, but does nothing yet; saving is automatic (or Config menu step 10)

2 LENGTH AND SECTIONS

A. SECTIONS

WORKS IN Pattern Write, running

A pattern has up to 64 steps, in four sections of 16. The step buttons show one section at a time. Press **PATTERN GROUP** to page to the next section. You can only page as far as the selected voice plays; steps past its length are hidden. Their contents are kept, so if you shorten a pattern and lengthen it again, the steps come back.

The two PATTERN GROUP LEDs show which section you are on:

SECTION	GROUP LEDS
1 (steps 1–16)	I lit
2 (steps 17–32)	II lit
3 (steps 33–48)	I lit, with a short blink of II about twice a second
4 (steps 49–64)	II lit, with a short blink of I about twice a second

When stopped, **PATTERN GROUP** switches pattern groups as usual.

B. PATTERN LENGTH

WORKS IN FUNCTION tool 1

Press the **STEP** for the last step of the pattern. Tap **PATTERN GROUP** to page through all four sections, so any length from 1 to 64 can be set. The last step shows as a lit LED. The tool opens on the section that holds the current length.

1 Make the pattern 24 steps long			
	Operation	Result	Notes
1	FUNCTION + STEP 1 , release.	The Length tool is open.	
2	Tap PATTERN GROUP until group LED II is lit.	Section 2 is shown.	
3	Press STEP 8 .	Step 8 lights: $16 + 8 = 24$ steps.	
4	Tap FUNCTION .	Back to step writing.	

C. VOICE LENGTH

WORKS IN FUNCTION tool 1

Each voice can loop a length of its own. Hold **WRITE/NEXT** and press a **STEP** to set the length of the voice on the Instrument dial. Hold **WRITE/NEXT** and press **PATTERN CLEAR** to make the voice follow the pattern length again.

While **WRITE/NEXT** is held, the voice's last step shows:

- **Lit:** own length, bar-reset.
- **Slow pulse:** own length, polymeter.
- **Fast blink:** following the pattern length.

How a voice with its own length plays is set in the Poly tool (next section).

D. GLOBAL LENGTH

WORKS IN FUNCTION tool 1

Hold **PATTERN GROUP** and press a **STEP** to play every pattern at that length. The marker blinks while a global length is set. Press **PATTERN CLEAR** to remove it. The global length is a live setting and is not kept after power-off.

3 BAR-RESET AND POLYMER

WORKS IN FUNCTION tool 7

A voice with its own length plays in one of two ways:

- **Bar-reset** (default): the voice's loop starts again at the top of every pattern pass, so every pass sounds the same. Steps beyond the pattern length never play.
- **Polymeter:** the voice's loop runs freely across passes and can be longer than the pattern. The figure moves against the beat and changes from pass to pass.

Steps 1–8 stand for the eight instrument positions. Lit means polymeter, dark means bar-reset. Press a step to switch that voice in the current pattern. A voice switched back to bar-reset lines up with the pattern at once. In Pattern Write each voice's chase light follows its own loop.

■ SET ALL PATTERNS AT ONCE

With the sequencer stopped, press **PATTERN CLEAR** to make every voice of every pattern bar-reset, or **WRITE/NEXT** to make them all polymeter.

NOTE:

The mode only matters for voices that have their own length. A voice that follows the pattern length plays the same either way.

4 SCALE AND SWING

WORKS IN FUNCTION tool 2

A. SCALE

Each pattern stores its own scale. The SCALE switch is read only inside this tool: move it while the tool is open to set the scale of the current pattern. Where the switch sat when you opened the tool is ignored. The new scale starts at the next pass of the pattern, or at once when stopped.

SCALE	EACH STEP IS
1	A 16th note
2	A 32nd note
3	An 8th-note triplet
4	A 16th-note triplet

B. SWING

Press a **STEP** to set the swing of the current pattern: step 1 is none, step 16 is the most. The LEDs show the amount as a bar. Swing delays every second step while keeping the tempo steady. It is stored with the pattern and works with the internal clock, DIN sync and MIDI clock.

5 PROBABILITY

WORKS IN FUNCTION tool 5

Probability gives a step a chance to play on each pass, so the pattern varies without repeating exactly. It is set per voice and per step.

1 Make one hi-hat step play half of the time			
	Operation	Result	Notes
1	Turn the Instrument dial to CH. FUNCTION + STEP 5 , release.	The hi-hat's steps are lit. Steps that already have a chance blink.	Tap PATTERN GROUP to page sections.
2	Press the step to change.	That step flashes over a bar showing its chance.	A full bar means it always plays.
3	Press STEP 8 .	The step now plays 8 times in 16.	The tool goes back to picking a step.

- In step 3, **STEP** n sets a chance of n in 16. Step 16, or **PATTERN CLEAR**, sets the step to always play.
- When no step is selected, **PATTERN CLEAR** removes every chance from the voice.
- Each hit is decided on its own. A chance on the accent track makes that accent come and go.
- A pattern holds up to 64 chances. Removing a step also removes its chance.

6 RATCHET

WORKS IN FUNCTION tool 6

A ratchet plays a voice several times inside one step, evenly spaced, for rolls and flams. It works like Probability: the voice's steps are lit, steps with a ratchet blink, press a step to select it, then set the value.

WITH A STEP SELECTED	RESULT
STEP 1	2 hits
STEP 2	3 hits
STEP 3 to 16	4 hits
PATTERN CLEAR	Single hit again

- When no step is selected, **PATTERN CLEAR** removes every ratchet from the voice.
- Voices on the same step can ratchet at different rates. The repeats follow the tempo and swing and stay inside the step. An accented step's repeats are accented too.
- A pattern holds up to 16 ratchets across all voices. When it is full, new ratchets are not added. The accent track cannot ratchet.

7 COPY, TRANSFORM AND GENERATE

A. COPY

WORKS IN FUNCTION tool 3

Works on the whole current pattern. Steps 1–3 are lit.

- **STEP 1**: clear the pattern (at once, no confirm).
- **STEP 2**: copy the pattern to the clipboard.
- **STEP 3**: paste the clipboard over the pattern.

1 Copy pattern 1 to pattern 2			
	Operation	Result	Notes
1	Stopped, in Pattern Write, press STEP 1 .	Pattern 1 is selected.	
2	FUNCTION + STEP 3 , release. Press STEP 2 .	Pattern 1 is on the clipboard.	
3	Tap FUNCTION , then press STEP 2 .	Pattern 2 is selected.	
4	FUNCTION + STEP 3 , release. Press STEP 3 .	Pattern 2 is now a copy of pattern 1.	Saved when you leave Pattern Write or run and stop.

B. TRANSFORM

WORKS IN FUNCTION tool 4

Changes the selected voice within the 16 steps of the shown section. Tap **PATTERN GROUP** to page sections. Steps 1–4 are lit.

- **STEP 1**: move every hit one step later (the last wraps to the first).
- **STEP 2**: move every hit one step earlier.
- **STEP 3**: reverse the steps.
- **STEP 4**: replace the steps with random hits. The SCALE switch sets how many: position 1 is sparse, position 4 is dense.

Chances and ratchets move with their hits. A random fill removes them from that section.

C. GENERATE

WORKS IN FUNCTION tool 12

The LEDs show the selected voice's steps and chase light. Press **WRITE/NEXT** to fill the shown section with random hits; press it again for a new variation. The SCALE switch sets the density, as in Transform. Turn the Instrument dial to generate other voices.

ADVANCED COURSE

1 LIVE TOOLS

WORKS IN Pattern Write, running

These tools are for playing over a running pattern. The pattern keeps its place on the beat underneath, so when you let go you land exactly where the pattern would have been.

A. MUTE

WORKS IN FUNCTION tool 8

Steps 1–8 are the eight instrument positions. Lit means playing, dark means muted. Press a step to mute or unmute it. **PATTERN CLEAR** mutes all voices; **WRITE/NEXT** unmutes everything. Mutes stay on after you leave the tool and apply to every pattern. Muted voices send no MIDI notes.

B. RESLICE

WORKS IN FUNCTION tool 9

Hold **STEP** n to repeat the next n steps from where you pressed, for a stutter or beat repeat. Hold step 2 for a two-step loop, step 4 for four, and so on. Release to return to the pattern on the beat. The LEDs show the playing step.

C. ARP

WORKS IN FUNCTION tool 10

Builds a short live sequence that replaces the pattern, one entry per step. Press steps 2–8 to add BD, SD, LT, HT, CY, OH or CH; step 1 adds a rest. Up to 16 entries; the LEDs count them. **PATTERN CLEAR** empties the sequence and the pattern returns. The sequence also clears when you leave the tool or stop. Arp entries play without accent.

D. DIRECTION

WORKS IN FUNCTION tool 11

Press **STEP 1** forward, **2** backward, **3** random or **4** ping-pong. The lit LED shows the current choice. The direction applies to every pattern and stays after you leave the tool. Chains and tracks still change pattern at the same time as when playing forward.

2 TRACKS

A track is a song: a list of up to 64 patterns from either group, played in order and looped. There are 8 tracks. In both Track modes the Instrument dial selects the track (positions 1–8).

A. WRITING A TRACK

WORKS IN Track Write

1 Write a track of four patterns			
	Operation	Result	Notes
1	Set the Mode dial to Track Write. Turn the Instrument dial to the track number.		
2	Press PATTERN GROUP to choose the group of the first pattern.	The group LED changes.	
3	Hold the pattern's STEP and press WRITE/NEXT .	The pattern is added to the end of the track. When stopped, its LED blinks.	
4	Repeat step 3 for the next three patterns.	The track has four entries.	Patterns can repeat.
5	To remove the last entry, hold PATTERN CLEAR and press WRITE/NEXT .	The last entry is removed.	

- Hold **FUNCTION** to see how many entries the track has: the lit step is the count (after 16 it starts again at step 1).
- Pressing **RUN/STOP** plays the track, and you can keep adding entries while it plays.
- To erase all tracks, use the Config menu (step 11).

B. PLAYING A TRACK

WORKS IN Track Play

Turn the Instrument dial to the track; its number blinks on the step LEDs. Press **RUN/STOP**. The track plays from its first entry, moves on each time a pattern ends, and loops at the end. The playing pattern's LED blinks on the beat.

3 CONFIG MENU

WORKS IN Any mode

Press **FUNCTION** and **PATTERN CLEAR** together to open the menu. It stays open after you release them. **FUNCTION** closes the whole menu. **PATTERN CLEAR** goes back one level. Lit LEDs show the settings.

CONTROL	SETTING
STEP 1	Opens the MIDI channel page (always lit)
STEP 2	SysEx link on or off. Lit = off: all SysEx in and out stops, so the web editor and remote updates cannot reach the unit. Notes, clock and transport still work. It can only be turned back on here.
STEP 3	MIDI OUT mode. Lit = THRU, dark = OUT.
STEP 8	Clock source. Lit = internal (TEMPO knob or DIN sync), dark = MIDI.
STEP 9	Restart in stock mode (see Stock Mode). Lit = superOS-606 is running.
STEP 10	Save all patterns, tracks and settings now (stopped only; always lit)
Hold STEP 11 + PATTERN GROUP	Erase all tracks (stopped only)
Hold STEP 12 + PATTERN GROUP	Erase all patterns (stopped only)

A. MIDI CHANNEL

On this page the LED of the current channel blinks. Press **STEP 1** to **16** to choose channel 1–16, or **WRITE/NEXT** for omni (all channels; every LED blinks). Press **PATTERN CLEAR** to go back to the main page. The default is channel 1.

Settings take effect at once and are saved when you close the menu, or at the next stop if the sequencer is running.

CAUTION:

Erasing all tracks or all patterns cannot be undone.

4 MIDI AND SYNC

MIDI works through the MIDI jacks and, when a USB-C cable is connected, through USB as well (the unit appears as "SuperOS-606"). Both carry the same messages.

A. MIDI OUT

In OUT mode the 606 sends a note for every drum hit on channel 1, plus Start, Stop and clock. Accented hits have velocity 127, others 96. Each note ends at the next step.

VOICE	NOTE	VOICE	NOTE
Bass drum	36	High tom	50
Snare drum	38	Cymbal	49
Low tom	45	Open hi-hat	46
		Closed hi-hat	42

In THRU mode, MIDI OUT passes on what arrives at MIDI IN (notes, other channel messages and clock) and the 606's own notes, clock, Start and Stop are not sent. The web editor still works.

B. MIDI IN

- **Notes:** the notes above play the voices, on the channel set in the Config menu. Velocity 100 or more adds accent. Notes that arrive together play as one hit.
- **Program Change 0–15:** selects pattern 1–16. Bank Select LSB (controller 32) chooses the group first: 0 = group I, 1 = group II. While running, the change waits for the end of the pattern, unless it arrives on the first step; then it switches at once.

C. CLOCK AND TRANSPORT

Clock source MIDI (default): when MIDI clock arrives, the 606 follows it. Start and Continue start the pattern from step 1; Stop stops it. When the clock stops for about a third of a second, the 606 goes back to its own clock. The panel **RUN/STOP** still works, and a MIDI Stop always stops the sequencer. The incoming clock is passed on to MIDI OUT.

Clock source internal: MIDI clock, Start and Stop are ignored. The 606 runs from the TEMPO knob, or from the DIN sync input when its rear switch is set to sync, and sends MIDI clock as the master.

When stopped, the selected pattern's LED blinks at the tempo of whichever clock is in charge.

5

PLAYING WITH USB CONNECTED

WORKS IN USB-C cable connected

While a USB-C cable is connected, some panel controls cannot be read. The Mode dial, the Instrument dial and the SCALE switch stay where they were when you plugged in, and **RUN/STOP** and **PATTERN CLEAR** do not respond. **WRITE/NEXT**, **FUNCTION**, **PATTERN GROUP** and the step buttons work normally. Hold **STEP 16** and press another step to reach the rest:

HOLD STEP 16 AND PRESS	DOES
STEP 1	RUN/STOP
STEP 4	PATTERN CLEAR (held as long as you hold both)
STEP 6 to 13	Select the instrument: 6 = accent, 7 = BD, 8 = SD, 9 = LT, 10 = HT, 11 = CY, 12 = OH, 13 = CH
STEP 14	Next mode: Pattern Play, Pattern Write, Track Play, Track Write, and round again

- A quick tap of **STEP 16** on its own still works as step 16.
- Hold **FUNCTION** and tap **STEP 16** quickly to open the Config menu.
- Unplug the cable and the panel works normally again, with the dials where they are.

NOTE:

In the Track modes, STEP 6 to 13 select tracks 1 to 8 the same way. The SCALE switch cannot be changed while plugged in, so set scales before connecting.

6 STOCK MODE

The firmware can also run the 606's original program, so the unit behaves like a stock 606. Stock mode keeps its own patterns, separate from superOS-606's; both are kept at power-off. The unit starts in whichever mode was last chosen.

A. SWITCHING MODES

- **To stock mode:** open the Config menu and press **STEP 9**. Edits are saved and the unit restarts.
- **Back to superOS-606:** in stock mode, press **FUNCTION** and **PATTERN CLEAR** together to open the same Config menu, and press **STEP 9**. In stock mode the step 9 LED blinks.
- **From the web editor:** the editor shows which mode is running and can switch it.
- **Always superOS-606:** hold **PATTERN CLEAR**, **FUNCTION** and **PATTERN GROUP** while switching on.

The Config menu in stock mode has the same MIDI channel, SysEx link, OUT/THRU, clock source and save (step 10, settings only) steps, and the settings are shared by both modes. The original program is paused while the menu is open. With clock source MIDI, stock mode also follows MIDI clock, Start and Stop.

B. THE ORIGINAL PROGRAM

Stock mode needs a copy of the 606's original program (its mask ROM), which you supply from your own unit. In the web editor, use the D650C mask ROM tools: load the dump (a 2048-byte **.bin**, or a **.syx** in the same format the editor saves), check it, and send it to the 606. The transfer takes a few seconds; the 606 stores it and restarts in stock mode. It is kept through power-off and firmware updates.

NOTE:

If stock mode is chosen and no program is stored, the unit waits for one: step LEDs 1 and 9 blink in turn. Send it from the editor, or open the Config menu and press **STEP 9** to return to superOS-606.

REFERENCE

1 FIRMWARE UPDATE

Updates are sent as a `.syx` file over MIDI. An update replaces only the firmware: patterns, tracks, settings and the stock-mode program are kept.

1 Update the firmware			
	Operation	Result	Notes
1	Connect a computer's MIDI out to the 606's MIDI IN jack.		Use the MIDI jack, not USB.
2	Start the update mode: use the web editor's reboot-to-bootloader button, or send SysEx <code>F0 7D 4A F7</code> , or hold WRITE/NEXT while switching on.	Step LEDs 1–4 blink twice, then step 1 stays lit.	The SysEx way works in both modes but not while the SysEx link is off; then use WRITE/NEXT .
3	Send the update <code>.syx</code> from the web editor or a SysEx utility, with a pause between messages.	Step LEDs 1–4 cycle while it writes.	
4	Wait for the transfer to finish.	The unit restarts with the new firmware.	

- If step LEDs 1–4 keep blinking together, a message arrived damaged. Switch off, start the update mode again and send more slowly.
- Sending `F0 7D 02 F7` leaves the update mode without changing anything.

CAUTION:

Back up your patterns before updating and do not switch off during an update unless it has already failed.

2 WEB PATTERN EDITOR

The editor at superos303.com/editor/606 runs in Chrome or Edge and connects over MIDI. It shows the pattern as a grid of the seven voices and the accent track, up to 64 steps, and reads all 32 patterns and 8 tracks from the 606 when it connects.

- Edits on the panel appear in the grid, and edits in the grid go to the 606 as you make them.

- Click a pattern to select it on the 606; drag across patterns to chain them. **Edit Live** lets you edit one pattern while the 606 plays another.
- Each row has its own length control and a Bar / Poly switch. Swing, scale, probability and ratchets can be set on screen too.
- Patterns can be saved to a library and to files, which is also how you back them up.
- The editor can change the MIDI channel, clock source and OUT/THRU, switch between superOS-606 and stock mode, send the stock-mode program, and update the firmware.

The editor needs the SysEx link to be on (Config menu step 2).

3 QUICK REFERENCE

CONTROL	ACTION
PATTERN WRITE	
STEP (stopped)	Select the pattern
Hold STEP + PATTERN CLEAR (stopped)	Clear that pattern
PATTERN GROUP (stopped)	Group I / II
STEP (running)	Set or remove a step for the dial's voice
PATTERN GROUP (running)	Next 16-step section
WRITE/NEXT (running)	Tap write
Hold PATTERN CLEAR (running)	Chase delete
TOOLS	
Hold FUNCTION	Show the tool map
FUNCTION + STEP	Open tool: 1 Length, 2 Scale/Swing, 3 Copy, 4 Transform, 5 Probability, 6 Ratchet, 7 Poly, 8 Mute, 9 Reslice, 10 Arp, 11 Direction, 12 Generate
Tap FUNCTION	Close the tool
LENGTH TOOL	
STEP	Pattern length (tap PATTERN GROUP to page)
Hold WRITE/NEXT + STEP	Voice length
Hold WRITE/NEXT + PATTERN CLEAR	Voice follows the pattern
Hold PATTERN GROUP + STEP	Global length
PATTERN CLEAR	Remove the global length
PATTERN PLAY	
STEP	Select pattern
Hold STEP + STEP	Chain the range
TRACK WRITE / TRACK PLAY	

CONTROL	ACTION
Instrument dial	Track 1–8
Hold STEP + WRITE/NEXT	Add the pattern to the track
Hold PATTERN CLEAR + WRITE/NEXT	Remove the last entry
Hold FUNCTION (Track Write)	Show the entry count
SYSTEM	
FUNCTION + PATTERN CLEAR	Config menu
Hold STEP 16 + STEP	Panel shortcuts while USB is connected
Hold WRITE/NEXT at power-on	Firmware update mode
Hold PATTERN CLEAR + FUNCTION + PATTERN GROUP at power-on	Start in superOS-606

4 SPECIFICATIONS

■ PATTERNS

32 (2 groups of 16), up to 64 steps each in 4 sections of 16. Seven voices plus an accent track. Scale and swing per pattern.

■ STEP DETAIL

Probability in 16ths (up to 64 per pattern) and 2, 3 or 4 hit ratchets (up to 16 per pattern), per voice and step.

■ VOICE LENGTH

1 to 64 steps per voice, bar-reset or polymeter.

■ TRACKS

8, up to 64 patterns each.

■ LIVE TOOLS

Mute, reslice, arp, play direction, global length.

■ TIMING

24 PPQN from the TEMPO knob, DIN sync or MIDI clock. Scales: 16ths, 32nds, 8th triplets, 16th triplets.

■ MIDI

In and out on the MIDI jacks and USB-C. Notes out on channel 1; notes and program change in on channel 1–16 or omni. Clock, Start and Stop in and out. OUT or THRU.

■ MEMORY

Patterns, tracks and settings are kept without power.

■ STOCK MODE

Runs the 606's original program from a user-supplied copy, with its own pattern memory.

■ **HARDWARE**

SuperOS CPU board in the original CPU socket. The 606's circuits are used unmodified.

superOS-606 Firmware Owner's Manual, firmware version 0.6.