TR-808 superOS

SHORTCUT GUIDE

BUILD 2026-10-14 · SUPEROS-808 · CUSTOM FIRMWARE FOR THE TR-808
FRAM EDITION (SUPEROS CPU V1.3) AND STANDARD EDITION

Every superOS-808 function on one drawing each: the panel, the controls involved, the order to use them, and the LEDs the 808 lights while you do it. The wide drawing is the sequencer strip; the box beside it is the upper-left corner of the panel (Mode Dial, Instrument Select, CLEAR and Auto Fill In) set the way the function needs it. Find the function, look at the picture, follow the numbered steps.



READING THE DRAWINGS

○ Black ring: press this key or set this control.
● Red ring and red label: hold it while you do the rest.
- - - Blue dashed box: any key in that group.

LEDS

● lit ◒ blinking ○ off
The step lamps, Basic Variation A and B, and 1st / 2nd PART. The knob pointers in the side box show the Mode Dial and Instrument Select position.

WORDS

A + B: hold A, then press B. Tap: press and release with nothing else held. Running: the sequencer is started. Latch: a tool stays on after CLEAR is released. The header gives the mode and when it works.

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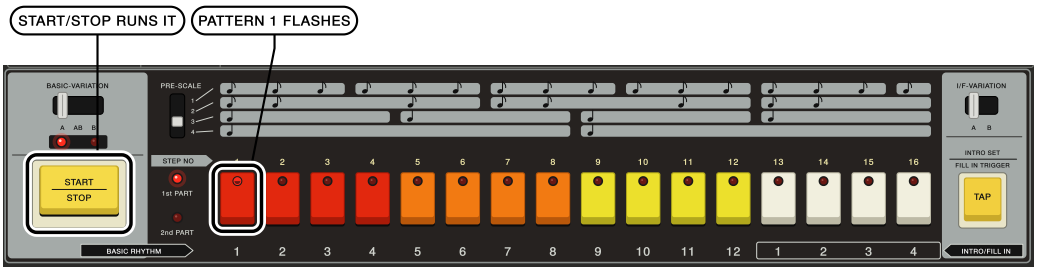
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1 POWER-ON

MANUAL PLAY | SWITCHING ON





Mode Dial on MANUAL PLAY: the selected rhythm's key flashes with the tempo.

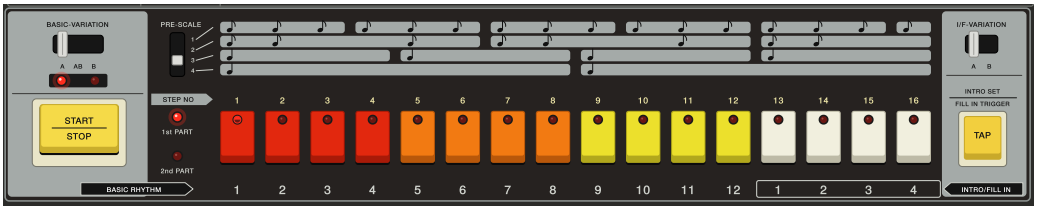
1. Set the Mode Dial to MANUAL PLAY and switch on.
2. The selected rhythm's step key flashes; Basic Variation A and 1st PART are lit.
3. Press START/STOP to run it, again to stop.

NOTE

The rear SYNC switch must be on OUT for the 808 to run from its own panel; on IN it waits for DIN sync.

2 THE MODE DIAL

ANY | STOPPED OR RUNNING





PATTERN CLEAR, 1ST PART, 2ND PART, MANUAL PLAY, PLAY, COMPOSE.

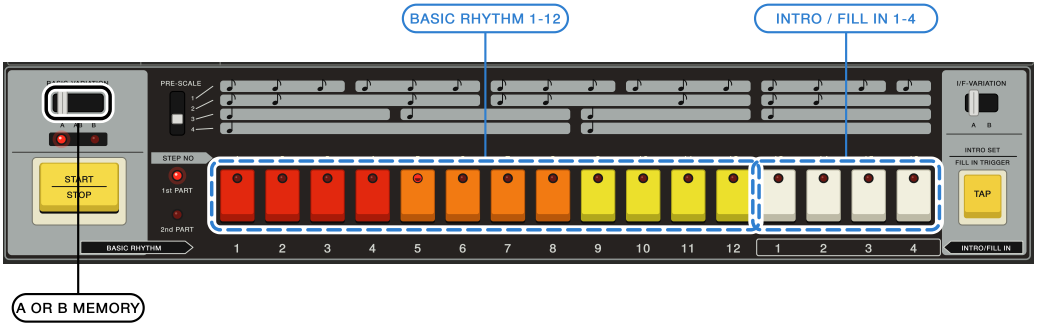
1. MANUAL PLAY plays patterns; the step keys pick the rhythm.
2. 1ST PART and 2ND PART write patterns: the step keys are the steps.
3. PATTERN CLEAR erases. PLAY plays a rhythm track. COMPOSE records and edits one.

NOTE

PLAY never changes a track. PLAY and COMPOSE are told apart only when the Mode switch's memory-protect connection is wired to the board; without it COMPOSE acts as PLAY (see Rhythm Tracks). Turning the dial always drops any latched tool and lands in the plain mode.

3 SELECT A PATTERN

MANUAL PLAY | STOPPED OR RUNNING





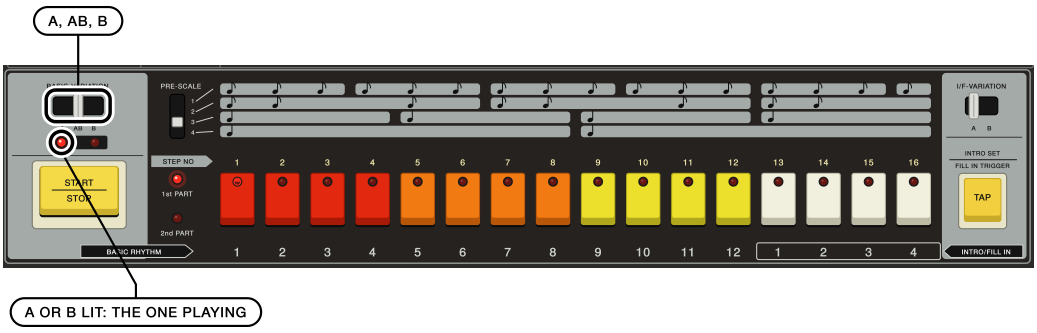
Rhythm 5 selected, variation A.

1. Press a step key 1 to 12 to select that basic rhythm. Its key flashes.
2. Keys 13 to 16 pick the intro / fill in pattern (Intro and Fill In below).
3. Running, the new rhythm starts at the end of the measure.

NOTE
Each slot holds two memories, A and B: 32 patterns in all. A press on the first beat of a measure starts the new rhythm on the second beat of that same measure, as stock.

4 BASIC VARIATION A / B / AB

MANUAL PLAY | STOPPED OR RUNNING





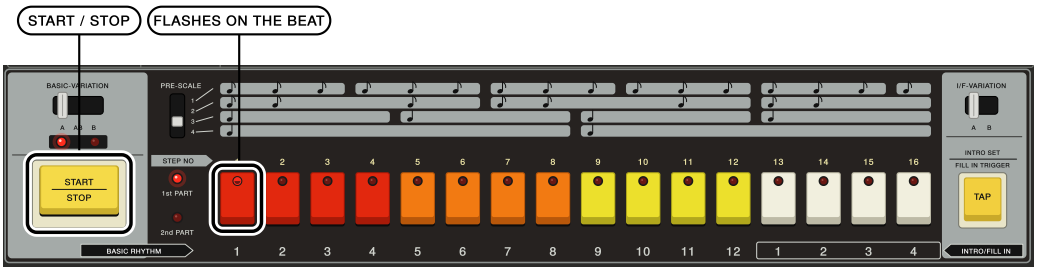
AB: A and B take turns, one measure each; the lamp shows which is sounding.

1. Set Basic Variation to A or B to play that memory of the rhythm.
2. Set AB to alternate them measure by measure.
3. The A or B lamp shows the half that is sounding.

NOTE
Step number and pre-scale are shared by A and B of one slot, so the two halves always line up.

5 PLAY AND STOP

MANUAL PLAY | STOPPED





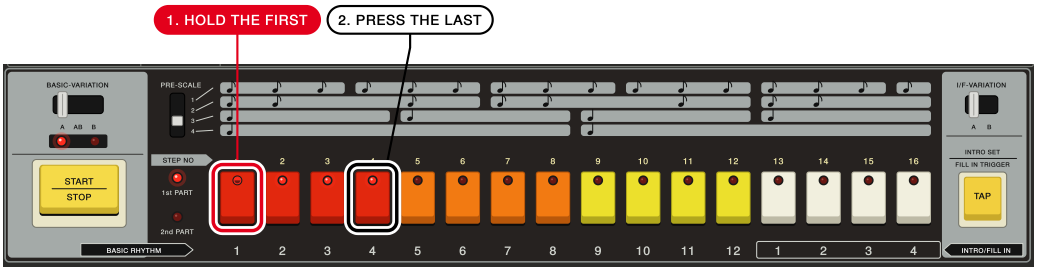
Running: the selected rhythm's key flashes on the beat.

1. Press START/STOP: the pattern plays from its first step.
2. Turn TEMPO for speed (fine tempo beside it).
3. Press START/STOP again to stop.

NOTE
Clock source MIDI (config menu, step 5 dark): the 808 follows MIDI clock and Start/Stop instead, and hands the transport back to the panel when the clock stops.

6 CHAIN PATTERNS

MANUAL PLAY | STOPPED OR RUNNING





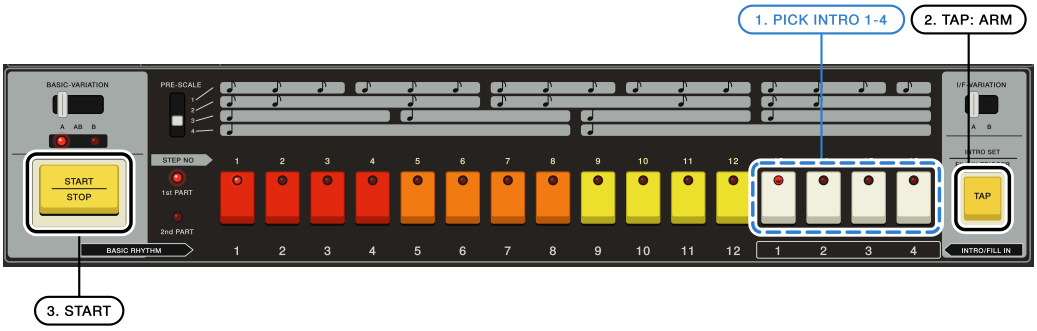
Chain 1 to 4: the playing rhythm flashes, the rest of the chain is lit.

1. Hold the step key of the first rhythm.
2. Press the key of the last one: every rhythm from first to last plays in order and loops.
3. Running, a new chain starts when the current chain ends (or at the end of the measure).

NOTE
Up to four rhythms. The chain keeps looping after you let go; press a single rhythm key to end it.

7 INTRO

MANUAL PLAY | STOPPED





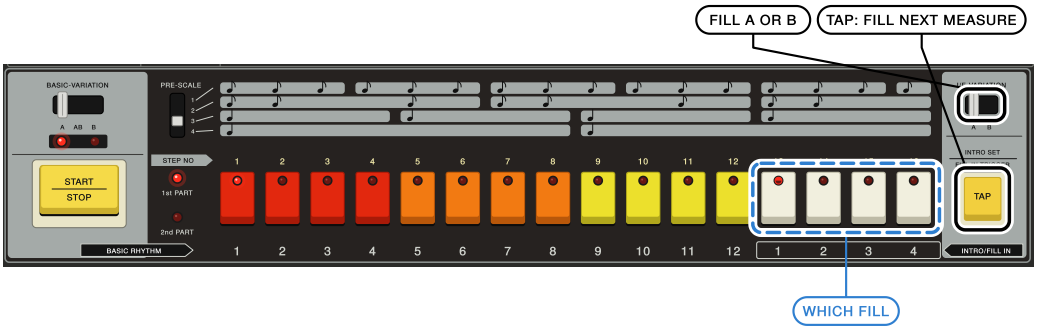
Intro armed: its key flashes and the basic rhythm stays lit.

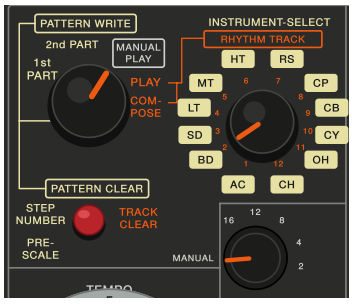
1. Press a key 13 to 16 to pick the intro.
2. Press TAP. The intro's key flashes: it will play first.
3. Press START/STOP: the intro plays once, then the basic rhythm.

NOTE
TAP again before starting cancels it. I/F-VARIATION picks the A or B memory of the intro / fill in slot.

8 FILL IN

MANUAL PLAY | RUNNING





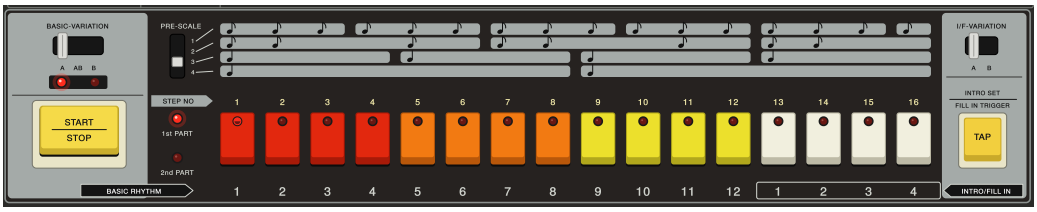
The fill playing: its key flashes, the basic rhythm is lit.

1. Pick the fill with a key 13 to 16 (it can be done while running).
2. Press TAP: the fill plays for one measure from the end of this one.
3. The rear FILL IN pedal does the same as TAP.

NOTE
TAP on the first beat of a measure fills that same measure, as stock.

9 AUTO FILL IN

MANUAL PLAY | RUNNING





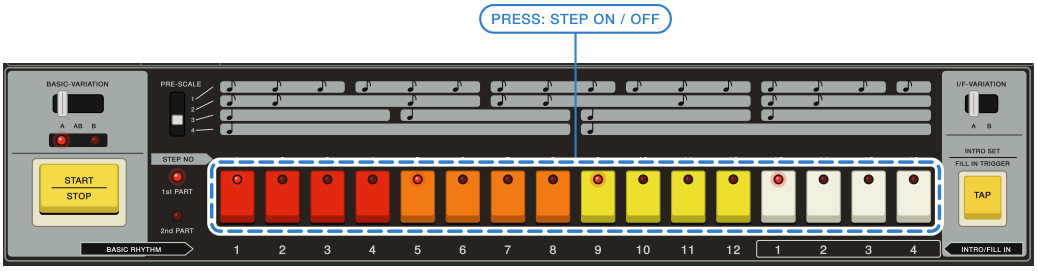
Auto Fill In at 4: the fill plays every fourth measure.

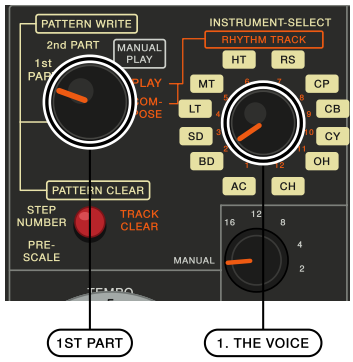
1. Pick the fill with a key 13 to 16.
2. Turn MEASURES AUTO FILL IN to 16, 12, 8, 4 or 2: the fill plays every that many measures.
3. MANUAL: fills only when you press TAP or the pedal.

PATTERN WRITE

10 WRITE STEPS

1ST PART | STOPPED OR RUNNING





Bass drum on steps 1, 5, 9 and 13. A lit key is a hit.

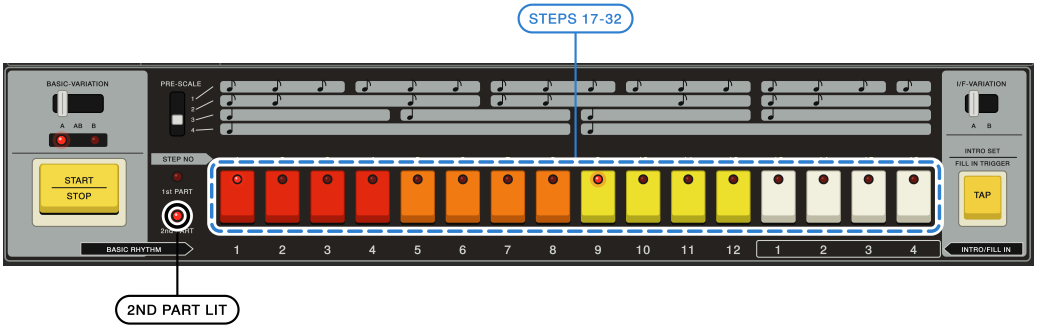
1. Select the rhythm in MANUAL PLAY, then turn the Mode Dial to 1ST PART.
2. Turn Instrument Select to the voice.
3. Press step keys to place and remove its hits.

NOTE

Running, the playhead's key inverts for a moment on each step. Steps past the part's step number, or past the voice's own loop length, stay dark and do not respond.

11 2ND PART: STEPS 17 TO 32

2ND PART | STOPPED OR RUNNING





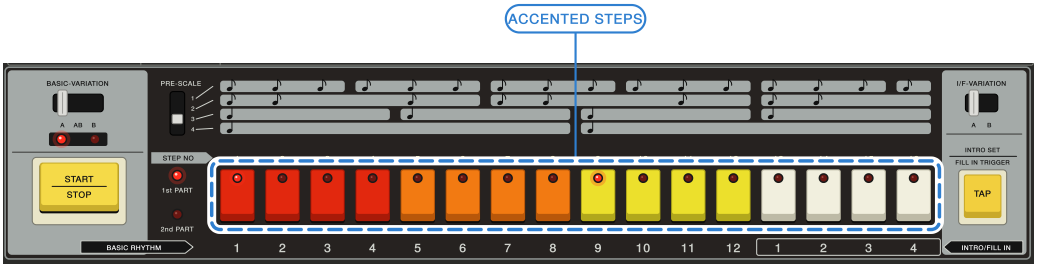
2ND PART lit: the keys are steps 17 to 32.

1. Turn the Mode Dial to 2ND PART.
2. Press step keys as in 1ST PART; they write steps 17 to 32.
3. A pattern without a second part gets one, sixteen steps long, on the first press.

NOTE
Running, the 1ST / 2ND PART lamps follow the part that is playing.

12 ACCENT

1ST PART | STOPPED OR RUNNING





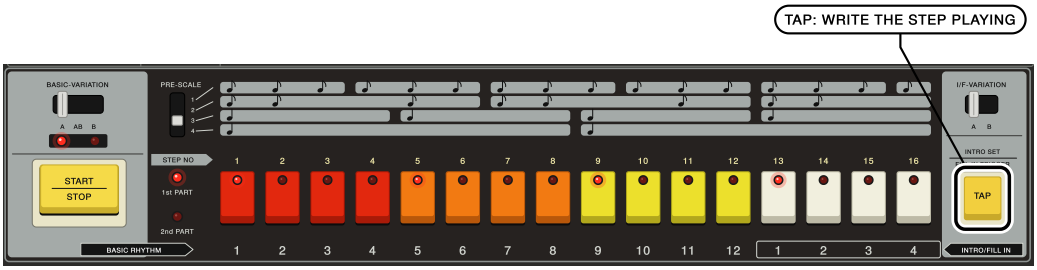
Instrument Select on AC: the lit keys are the accented steps.

1. Turn Instrument Select to AC.
2. Press the steps to accent, as for a voice.

NOTE
Accent is one level per step, shared by every voice sounding on it, set by the ACCENT knob: exactly as the stock machine.

13 TAP WRITE

1ST PART | RUNNING



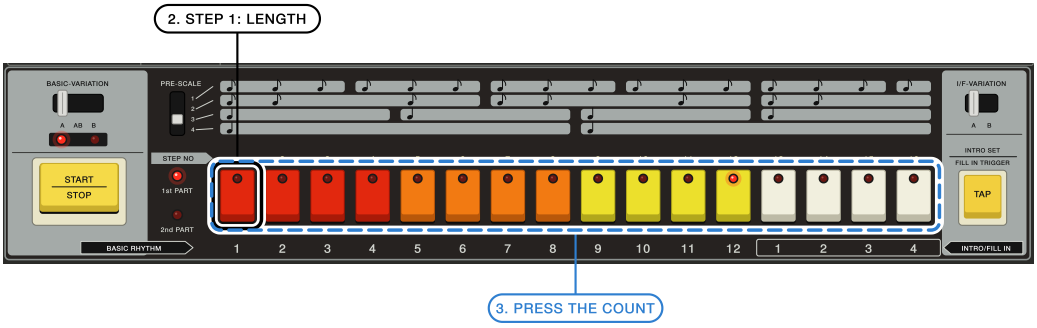


Each TAP lands the voice on the step that is playing.

1. Start the pattern and turn the Mode Dial to 1ST or 2ND PART.
2. Pick the voice with Instrument Select.
3. Press TAP in time: the voice is written on the step playing now.

14 STEP NUMBER

1ST PART | STOPPED





LENGTH latched: the lit key is the part's step number, here 12.

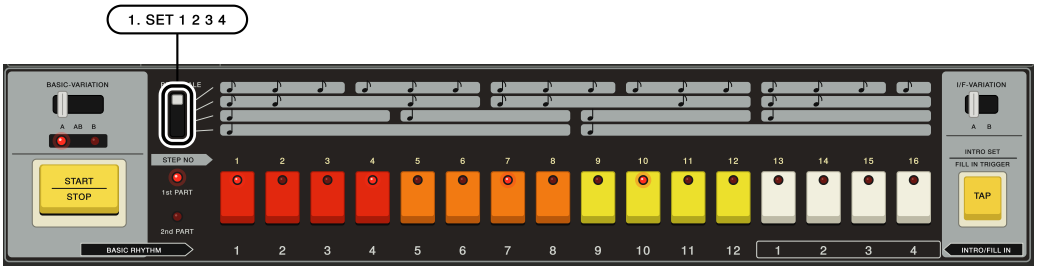
1. Hold CLEAR and press step 1: LENGTH latches. Release CLEAR.
2. Press the step key for the count: step 12 for a twelve-step part.
3. Tap CLEAR to go back to step entry.

NOTE

Press the count the part already has to delete that part (any part but the 1st): a 2nd part made by a stray press goes away again.

15 PRE-SCALE

1ST PART STOPPED





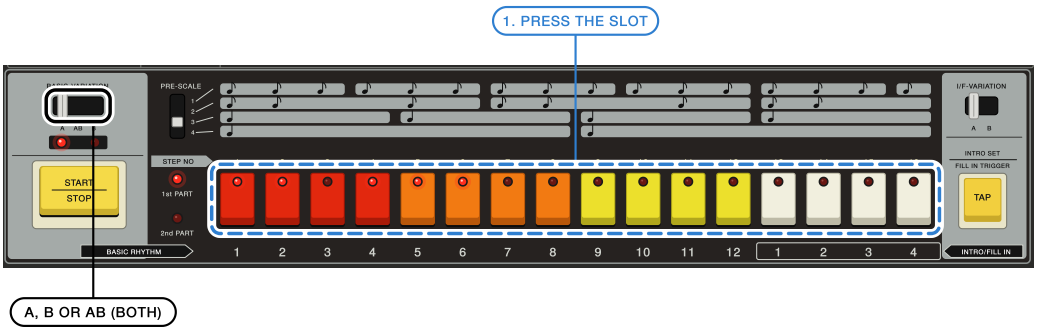
Pre-Scale 1: three steps to a beat.

1. Set the PRE-SCALE switch: 1 = 3, 2 = 6, 3 = 4, 4 = 8 steps to a beat.
2. Tap CLEAR: the setting is stored with the pattern.

NOTE
The tap commits only if the switch moved since the last commit, so a stray tap cannot retime a pattern. Recalling the pattern restores its own pre-scale.

16 CLEAR A PATTERN

PATTERN CLEAR STOPPED





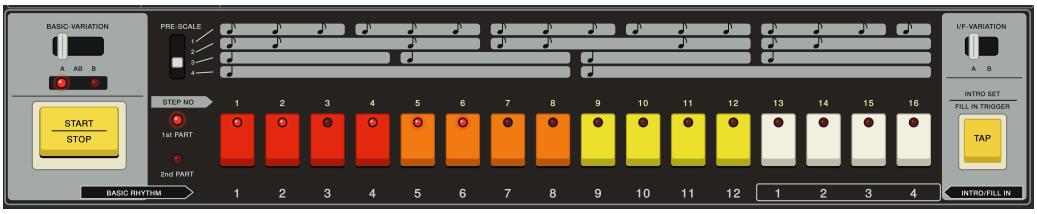
Lit: slots holding data. Slot 3 selected, shown inverted (dark).

1. Turn the Mode Dial to PATTERN CLEAR.
2. Press the step key of the slot.
3. Tap CLEAR: Basic Variation A or B erases that memory, AB erases both.

NOTE
Not undoable.

17 CHASE DELETE

PATTERN CLEAR | RUNNING





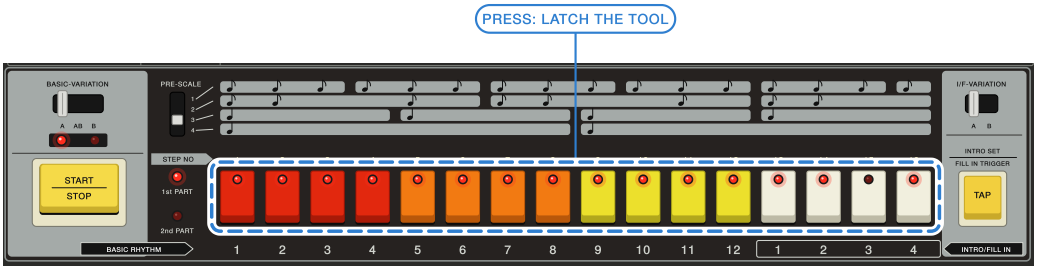
Running in PATTERN CLEAR: the voice's hits go as the playhead passes.

1. Run the pattern and turn the Mode Dial to PATTERN CLEAR.
2. Pick the voice with Instrument Select.
3. Hold CLEAR: its hits are erased as they play. Let go to stop.

THE CLEAR LAYER

18 THE TOOL MAP

1ST / 2ND PART, MANUAL PLAY | STOPPED OR RUNNING





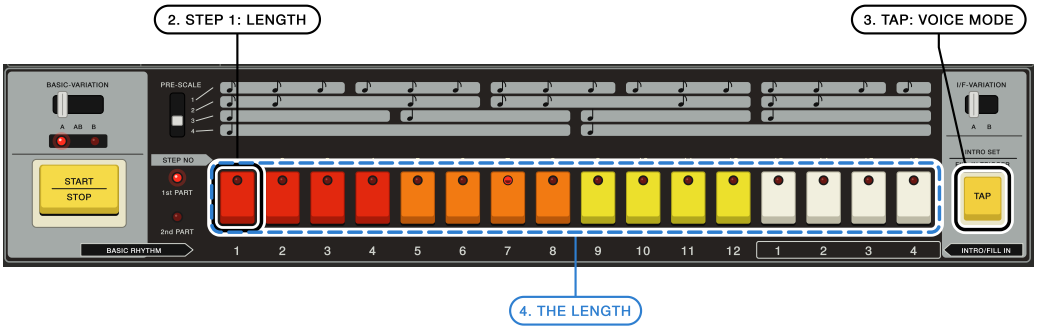
CLEAR held: every tool lit, 15 dark (unused).

1. Hold CLEAR: the step LEDs show the tool map at once.
2. Press a step to latch that tool, then release CLEAR.
3. Tap CLEAR to leave the tool; turning the Mode Dial leaves it too.

NOTE
1 LENGTH, 2 SWING, 3 COPY, 4 TRANSFORM, 5 PROBABILITY, 6 RATCHET, 7 POLYMETER, 8 MUTE, 9 RESLICE, 10 ARP, 11 DIRECTION, 12 GENERATE, 13 SAVE, 14 SECTION, 16 CONFIG MENU. A latched tool blinks in the map.

19 VOICE LOOP LENGTH

1ST / 2ND PART | STOPPED OR RUNNING





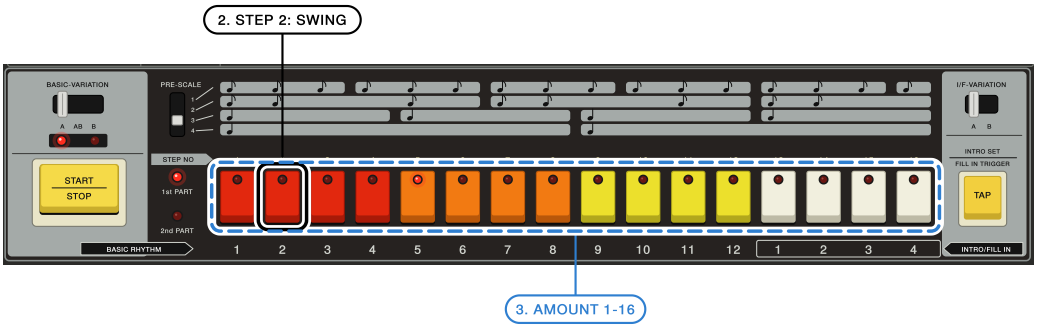
Voice mode: the voice's own length blinks on the beat (7 steps).

1. Latch LENGTH (CLEAR + step 1) and pick the voice with Instrument Select.
2. Press TAP: the LED blinks on the beat, the keys now set the voice's own loop length.
3. Press its length again to clear it. TAP returns to the master length.

NOTE
Hold CLEAR and turn PRE-SCALE here to commit the pattern's pre-scale; in voice mode the same move sets the voice's own pre-scale.

20 SWING

1ST / 2ND PART | STOPPED OR RUNNING





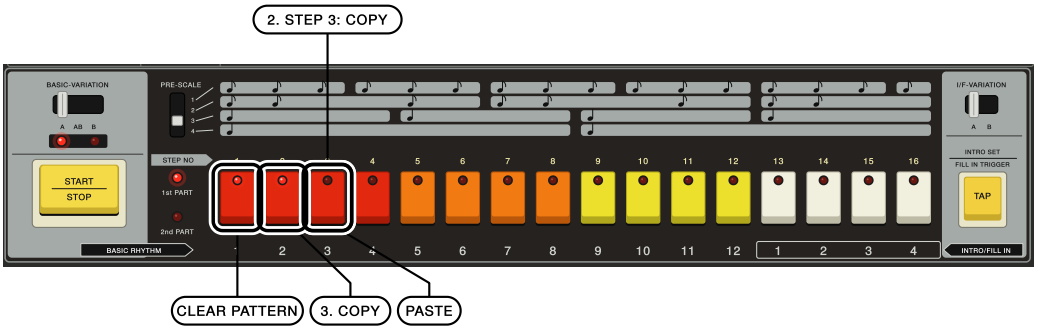
The lit key is the swing amount; step 1 is none.

1. Latch SWING (CLEAR + step 2).
2. Press 1 to 16: 1 is straight, 16 the most swing.

NOTE
Saved with the pattern. On-beats get longer and off-beats shorter by the same amount, so the tempo stays put.

21 COPY / PASTE

1ST / 2ND PART | STOPPED





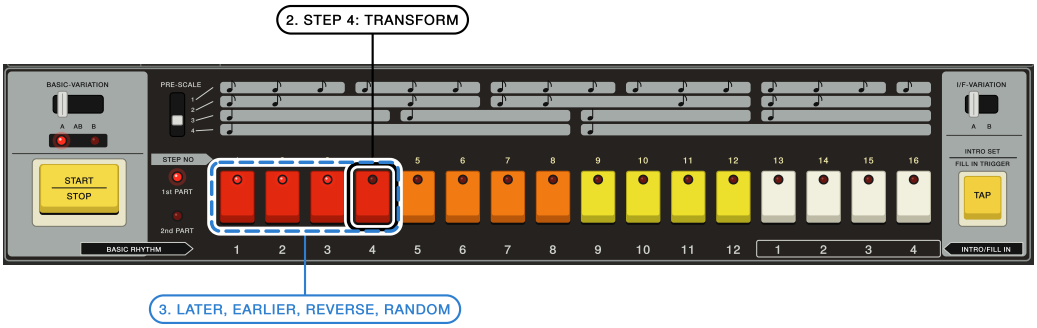
Step 1 clears the pattern, step 2 copies it, step 3 pastes.

1. Latch COPY (CLEAR + step 3) on the pattern to copy; press step 2.
2. Select the destination (slot or variation) and latch COPY again.
3. Press step 3: the copy is pasted over it.

NOTE
Step 1 clears the current pattern. The copy is kept until power-off.

22 TRANSFORM

1ST / 2ND PART | STOPPED OR RUNNING





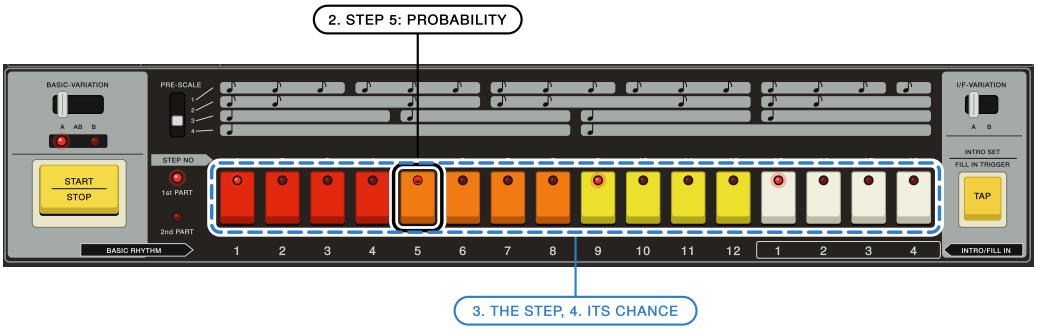
Acts on the selected voice in the displayed section.

1. Latch TRANSFORM (CLEAR + step 4) and pick the voice.
2. Step 1 shifts every hit one step later, 2 one step earlier, 3 reverses.
3. Step 4 fills the voice at random, denser as PRE-SCALE goes up.

NOTE
Shifts wrap round all sixteen steps whatever the section length. Probabilities and ratchets move with their hits.

23 PROBABILITY

1ST / 2ND PART | STOPPED OR RUNNING





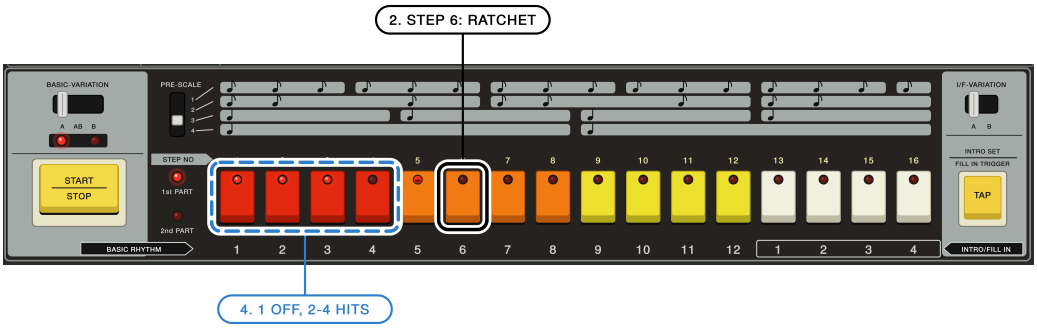
Picking: the voice's hits lit, steps with a chance blink (step 5).

1. Latch PROBABILITY (CLEAR + step 5) and pick the voice.
2. Press a step: it blinks, and the LEDs show its chance as a bar.
3. Press 1 to 15 to set the chance in sixteenths; 16 makes it certain again.

NOTE
TAP before picking a step removes every chance from the voice; TAP after picking resets that step. Works on the accent track too.

24 RATCHET

1ST / 2ND PART | STOPPED OR RUNNING





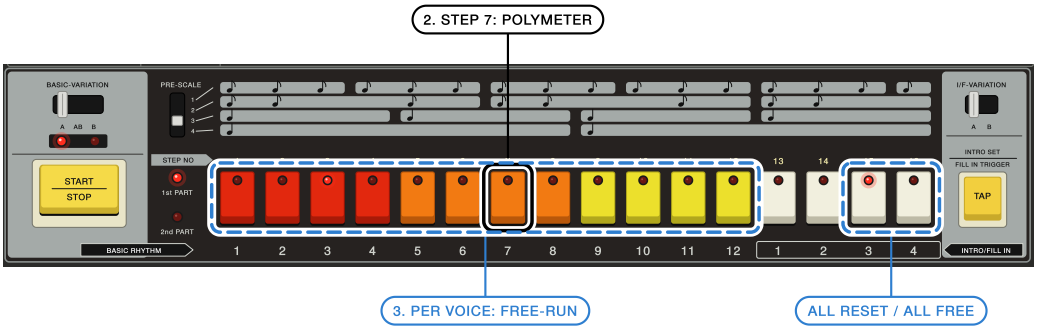
Step 5 selected (blinking) with three hits: the bar shows three.

1. Latch RATCHET (CLEAR + step 6) and pick the voice.
2. Press the step to subdivide: it blinks.
3. Press 2, 3 or 4 for that many hits in the step, 1 to clear.

NOTE
Keys above 4 also give 4 hits. TAP before picking a step removes every ratchet from the voice; TAP after picking resets that step. Hits are spaced evenly over the step.

25 POLYMETER

1ST / 2ND PART STOPPED OR RUNNING





Snare drum free-running (step 3 lit); 15 is lit as its label.

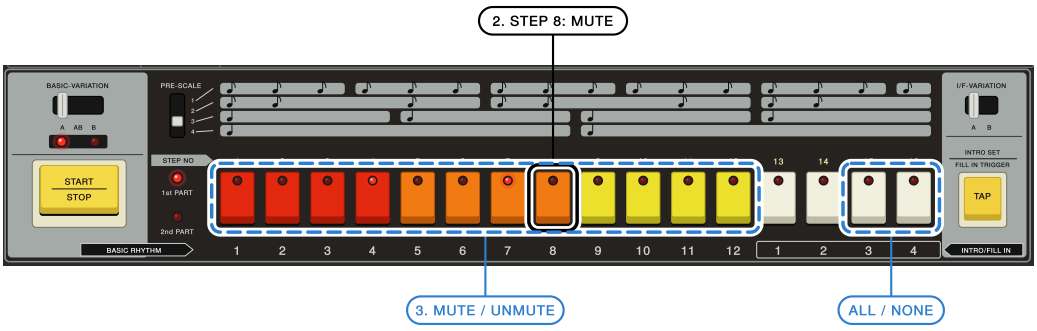
1. Latch POLYMETER (CLEAR + step 7).
2. Steps 1 to 12 are the Instrument Select positions (1 = AC): lit = that voice's loop free-runs across bars, dark = it restarts with the bar.
3. 15 sets every voice in every pattern to bar reset; 16 turns free-run on or off for every voice in every pattern.

NOTE

TAP switches to the voice-length mode of the LENGTH tool. A voice with no length of its own has nothing to free-run against.

26 MUTE

1ST / 2ND PART, MANUAL PLAY STOPPED OR RUNNING





Low tom and rim shot muted (steps 4 and 7 lit).

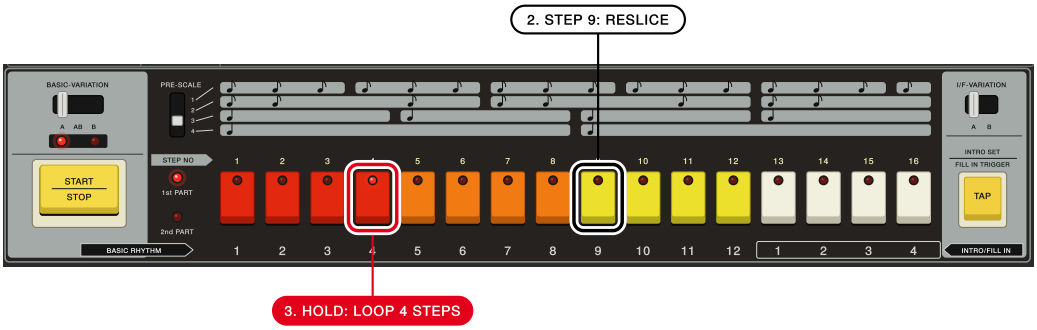
1. Latch MUTE (CLEAR + step 8).
2. Steps 1 to 12 in Instrument Select order: 1 = accent, 2 = bass drum ... 12 = closed hi-hat.
3. 15 mutes all but accent, 16 unmutes all.

NOTE

Mutes are performance state and are not saved.

27 RESLICE

1ST / 2ND PART, MANUAL PLAY | RUNNING



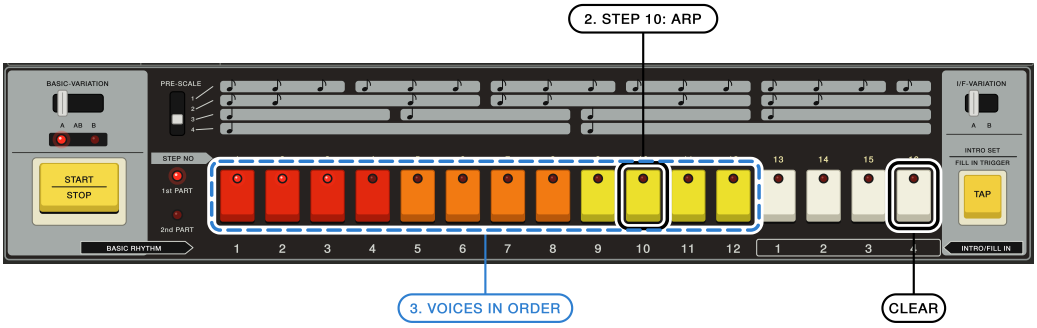


Step 4 held: the last four steps loop.

1. Latch RESLICE (CLEAR + step 9) while running.
2. Hold a step key: that many steps loop from where the pattern is.
3. Let go: the pattern carries on from where it would have been.

28 ARP

1ST / 2ND PART, MANUAL PLAY | STOPPED OR RUNNING



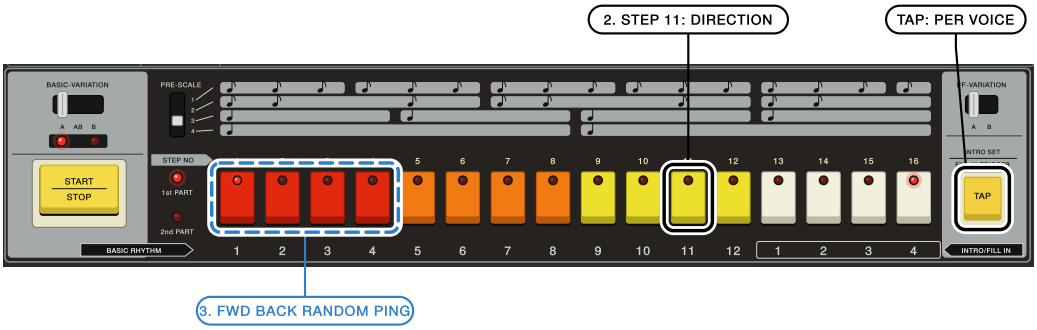


A three-voice arp: one LED per voice in the sequence.

1. Latch ARP (CLEAR + step 10).
2. Press voice keys 2 to 12 in the order to play them, one hit per step (key 1 adds a rest).
3. 16 clears it; leaving the tool or stopping clears it too.

29 DIRECTION

1ST / 2ND PART STOPPED OR RUNNING





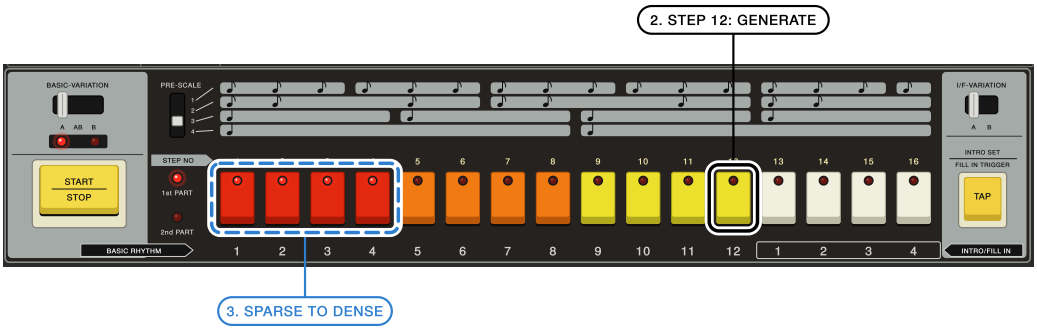
Forward (step 1); step 16 lit: setting the pattern's direction.

1. Latch DIRECTION (CLEAR + step 11).
2. Steps 1 to 4: forward, backward, random, ping-pong. Saved with the pattern.
3. TAP: the LED blinks and 1 to 4 set the selected voice's own direction.

NOTE
Pressing the direction a voice already has hands it back to the pattern's.

30 GENERATE

1ST / 2ND PART STOPPED OR RUNNING





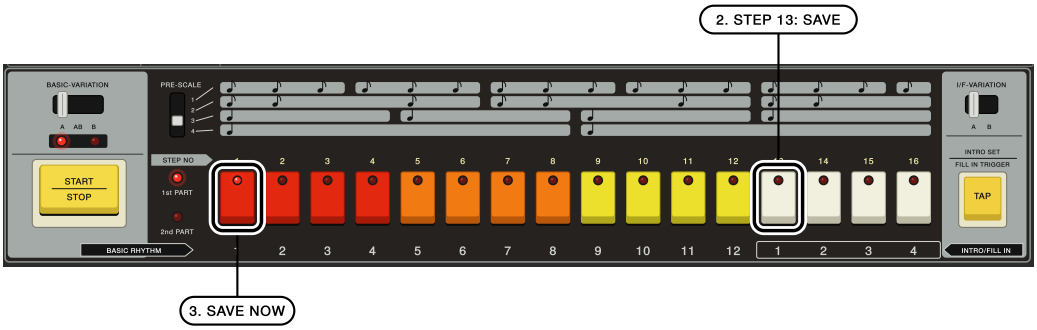
Steps 1 to 4: four densities.

1. Latch GENERATE (CLEAR + step 12) and pick the voice.
2. Press 1 to 4: the section is refilled at random, from about one step in six to three in four.

NOTE
It overwrites the voice's steps and removes their probabilities and ratchets: copy the pattern first to keep a way back.

31 SAVE

1ST / 2ND PART | STOPPED





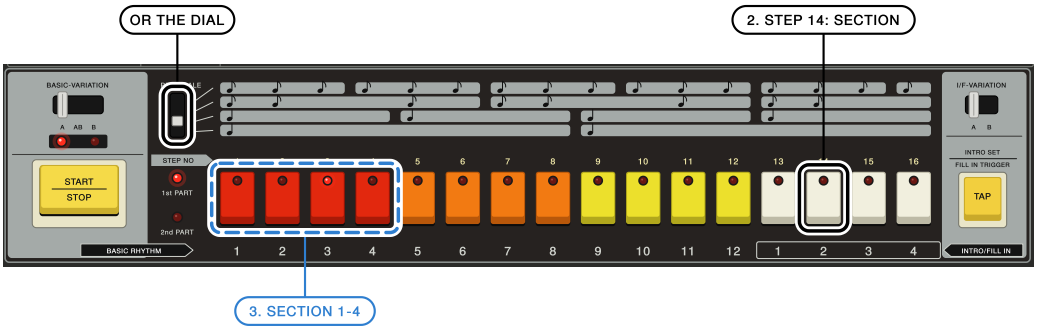
Step 1 lit: saving is possible (stopped).

1. Latch SAVE (CLEAR + step 13).
2. Press step 1: changed patterns are written to memory.

NOTE
The 808 also saves on stop and when the Mode Dial moves; this is for when you want to be sure. Not while running.

32 SECTION: UP TO 64 STEPS

1ST / 2ND PART | STOPPED OR RUNNING





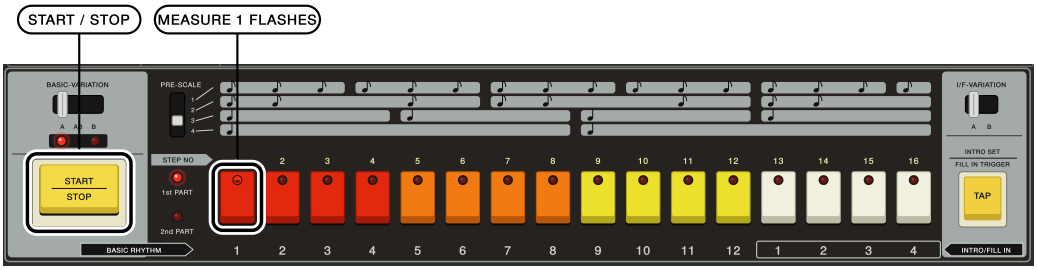
Section 3 on display.

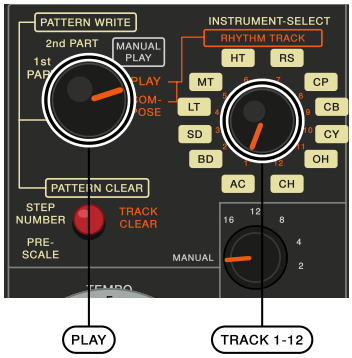
1. Latch SECTION (CLEAR + step 14).
2. Press 1 to 4, or move PRE-SCALE: the keys and LEDs now address that section.
3. Tap CLEAR and write steps in it; the choice stays until the Mode Dial moves.

NOTE
Four sections of sixteen: up to 64 steps, each with its own step number. A press in a section that does not exist yet creates it.

33 TRACK PLAY

PLAY | STOPPED





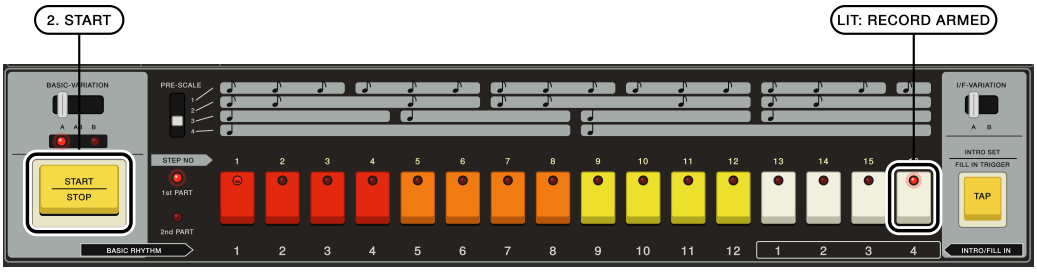
Track 1 stopped: the first measure's pattern flashes.

1. Turn the Mode Dial to PLAY and pick the track with Instrument Select (1 to 12).
2. Press START/STOP: the track plays measure by measure and loops.
3. A step key changes the next measure for one pass only.

NOTE
PLAY is memory protected: nothing here writes the track. A track picked while running takes over at the loop point.

34 RECORD A TRACK

COMPOSE | STOPPED





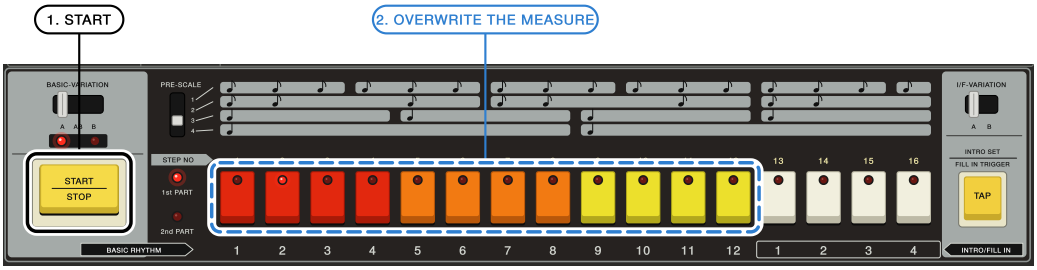
Record armed: step 16 steady.

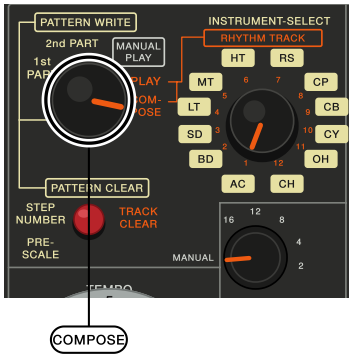
1. Turn the Mode Dial to COMPOSE and pick the track.
2. Tap CLEAR (it takes effect half a second after you let go): step 16 lights.
3. START/STOP records from measure 1: every pattern, fill, intro and auto fill you play is memorized. Press START/STOP in the measure that should be the last.

NOTE
Tap CLEAR again to disarm. Without the Play/Compose connection, use the same gesture in PLAY.

35 EDIT A TRACK

COMPOSE | RUNNING





Running: the measure's pattern lit (rhythm 2).

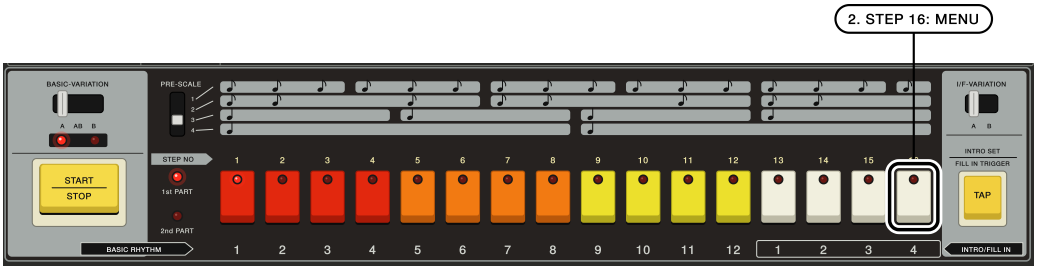
1. Turn the Mode Dial to COMPOSE and pick the track.
2. Press START/STOP: the track replays.
3. Press a step key: it overwrites the measure it lands in. The length stays.

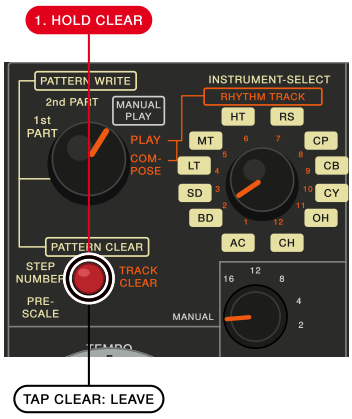
NOTE
Without the Play/Compose connection: tap CLEAR twice quickly, then START (step 16 blinks while armed).

SETUP

36 CONFIG MENU

1ST / 2ND PART, MANUAL PLAY | STOPPED OR RUNNING





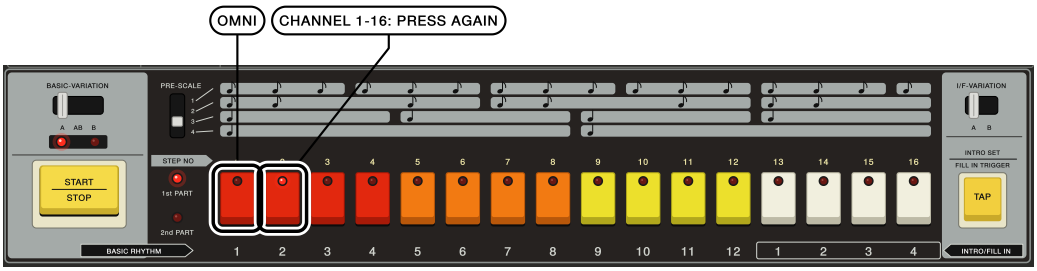
Default: step 1 (omni) lit.

1. Hold CLEAR and press step 16. Release CLEAR.
2. Press the item keys (next functions).
3. Tap CLEAR to leave: the only way out.

NOTE
Items: 1 omni, 2 channel, 3 SysEx in, 4 SysEx out, 5 clock source, 6 OUT / THRU, 8 panel calibration, 9 stock firmware mode (builds that have it), 13 notes in, 14 notes out. The sequencer keeps running with the menu open. Settings are saved when the menu closes, or at the next stop.

37 MIDI CHANNEL

CONFIG MENU | MENU OPEN





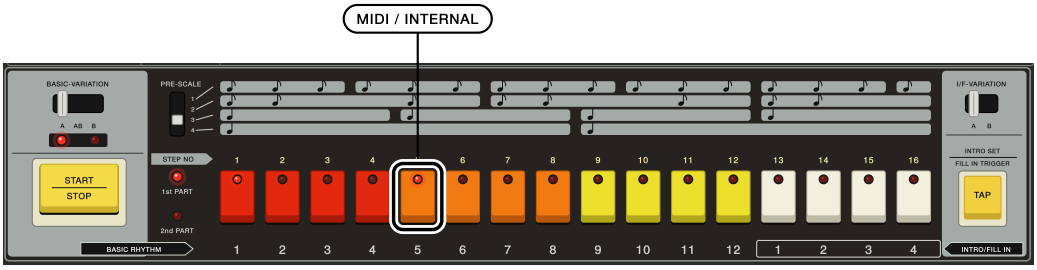
Step 2 lit: a single channel is set.

1. Press step 1 for omni (every channel).
2. Press step 2 repeatedly to step through channels 1 to 16.

NOTE
The channel gates notes, program change and bank select. SysEx has no channel.

38 CLOCK SOURCE

CONFIG MENU | MENU OPEN





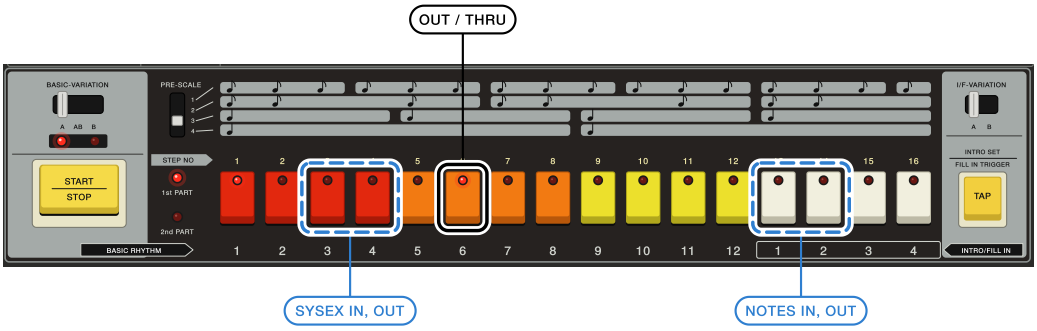
Step 5 lit: the 808's own clock.
Dark: MIDI clock.

1. Press step 5 to toggle between MIDI clock and the 808's own tempo.

NOTE
On MIDI the 808 follows 24-PPQN clock and Start / Continue / Stop, from one port at a time: a master on USB and the MIDI jack at once does not double the tempo. A clock silent for a third of a second hands the transport back to the panel. Internal: incoming clock is ignored. Whenever it runs on its own tempo the 808 sends clock, Start and Stop.

39 MIDI OUT AND SWITCHES

CONFIG MENU | MENU OPEN





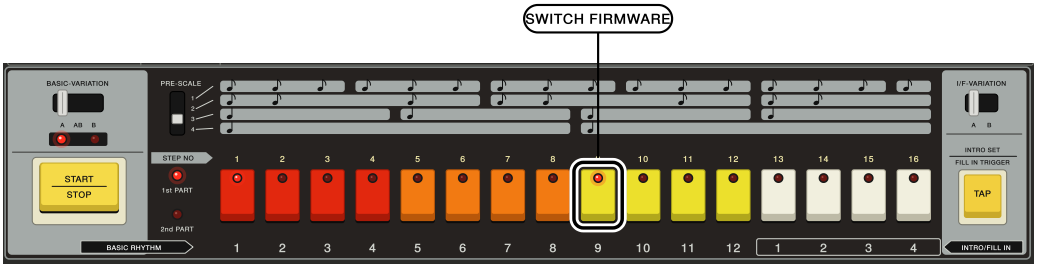
Step 6 lit: THRU, the 808's own messages are not sent.

1. Step 6: dark = OUT, the 808 sends its notes, clock and Start/Stop; lit = THRU, it sends none of them.
2. Steps 3 and 4: SysEx in and out. Steps 13 and 14: notes in and out. Lit = off.

NOTE
With SysEx in off, the web editor cannot reach the 808 (not even to switch it back): only this menu turns it on again.

40 STOCK FIRMWARE MODE

CONFIG MENU | MENU OPEN





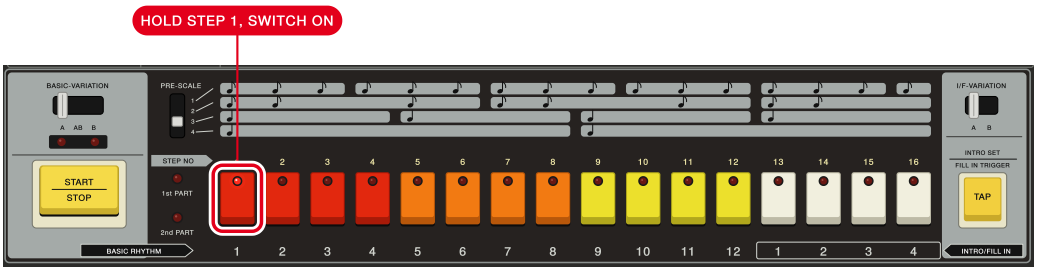
Step 9 solid in superOS, blinking when the menu is opened from stock mode.

1. Press step 9: the 808 restarts running the original 1981 program.
2. In stock mode, hold CLEAR and press TAP: this menu opens and the music keeps playing. Press step 9 to return.
3. Hold step 1 and step 16 while switching on to force superOS.

NOTE
Only on builds made with the original program, which is not included with superOS-808. Stock mode adds MIDI clock sync and instant step entry.

41 FIRMWARE UPDATE

POWER-ON | HOLD WHILE SWITCHING ON





Bootloader: steps 1 to 4 blink twice, then step 1 stays lit.

1. Hold step 1 and switch on: the 808 waits in its bootloader.
2. Send the new firmware from the web editor or a SysEx tool over USB-C or MIDI.
3. It restarts on its own when the upload is complete.

NOTE

The web editor can also send the 808 to its bootloader over MIDI, no hands needed. Your patterns are not touched by an update.

MIDI NOTES IN (GENERAL MIDI DRUM MAP)

NOTE	VOICE	NOTE	VOICE
36	Bass drum	39	Hand clap
38	Snare drum	56	Cowbell
41	Low tom	49	Cymbal
45	Mid tom	46	Open hi-hat
48	High tom	42	Closed hi-hat
37	Rim shot		

Velocity 100 or more adds accent to that hit. With notes out on, the 808 sends its own hits on the same notes, on channel 1, at velocity 127 when accented and 96 otherwise.

PATTERNS BY MIDI

MESSAGE	SELECTS
Program change 0-15	Step key 1-16, variation A
Program change 16-31	Step key 1-16, variation B
CC 32 (bank select LSB)	0 = A, 1 = B; wins over the program number once sent

A selection behaves as a panel press: running, it lands at the end of the measure. After a program change the Basic Variation dial is ignored until you move it.

CLOCK

Clock source MIDI: 24 PPQN clock, Start, Continue and Stop are obeyed; the first clock after Start is the downbeat. Silence for a third of a second hands the transport back to the panel. Internal: incoming clock is ignored. Whenever the 808 runs on its own tempo it sends clock, Start and Stop. The rear DIN SYNC jack works as stock (rear switch on IN).

POWER-ON HOLDS

HOLD	RESULT
Step 1	Bootloader: waits for a firmware update
Steps 1 + 16	Starts superOS, on builds with stock firmware mode

PLAY AND COMPOSE

The panel sends the same signal for PLAY and COMPOSE. The board tells them apart only when the Mode switch's memory-protect connection is wired to it. Without that connection both positions act as PLAY, and the CLEAR gestures arm record and edit from either one.

WEB EDITOR

Patterns, tracks and settings can be read and written over SysEx from the superOS-808 web editor, over USB-C or MIDI. It also runs panel calibration (config menu step 8) and firmware updates.

ABOUT THESE PAGES

The LED states in every drawing show the moment described. Everything not described here works as on the stock TR-808. Details: superOS-808 Owner's Manual.