ear Up!

OPERATING SYSTEM FOR THE ROLAND TR-8

TRGR8

Technical Manual

Version 1.0.0

Designed with joy and passion by **Shanon Fernald**

REFERENCE

Contents

For your first session, follow pages 3–6. Use the remaining sections to look up routing, timing, effects, editing controls and help with a connection.

Getting started

03 Install TRGR8 for the first time
04 Configure the first startup
05 Use the Librarian
06 Bring in the Roland factory sounds

OS and audio

07 Operating system specifications
08 Audio signal paths
09 USB recording and playback
10 Instrument and controller map

Sequencing, effects and tone editing

11 Sequencer timing and step data
12 MIDI messages and clock
13 Accent and Scatter
14 Reverb and delay
15 External input and sidechain
16 Sample format and capacity
17 Tone editor parameters

Studio reference and support

18 Update or recover TRGR8
19 USB and MIDI connections
20 Set up a multitrack session
21 Troubleshooting
22 Panel display reference
23 Librarian reference and workflows

Quick lookup USB channel map · page 9. Tone editor faders · page 17. Update and recovery · page 18.

GETTING STARTED

Install TRGR8 for the first time

Use First Install when the instrument still runs Roland's OS. On Mac and Windows, the desktop Librarian prepares the file and guides you through the buttons. If TRGR8 is already installed, turn to page 18.

1 Choose what to keep

Open the Librarian and choose Install or update OS, then Roland OS · First install. To save your stock kits and patterns, choose Back up Roland kits and patterns. Start the TR-8 holding pad 2, connect USB and choose Save stock backup. The app shows the backup location. Eject the drive, disconnect and power off.

2 Prepare the TR-8

To include the original factory waves, choose or drop your Roland v1.61 ZIP in the installer. You can skip this and begin with the built-in sounds. Choose Continue to first install. Power on holding pad 1, release it and connect USB. When the app recognizes the update drive, choose Install. Wait for it to verify and eject the file. If prompted, eject the drive yourself.

Using Finder or File Explorer instead? Download the TRGR8 First Install file named TR8_UPD.BIN. Open the pad-1 drive named TR-8, drag the file to its top level, wait for copying to finish and eject. Keep Roland's identically named sound source in a separate folder.

3 Press pad 2 and wait for the finish lights

Unplug USB and press pad 2 when it flashes. Keep the power on until BD through RC and all sixteen pads blink together. Turn the TR-8 off, power it on normally and reconnect USB. Choose Check installed version in the Librarian. To hear your first kick, press INST PLAY, raise BD and master VOLUME gradually and tap pad 1.

Roland stock backup · Update-drive light sequence

GETTING STARTED

Configure the first startup

Hold PTN SELECT while switching on, or during the three-second TrG8 greeting. Release when START/STOP blinks and the MIDI channel appears. Set the options below. Press START/STOP to save and restart. Power off before saving to discard changes.

Control in setup	Choice	Default
TEMPO	MIDI channel 1–16, Off or Omni.	10
Pad 1	Lit follows external clock automatically. Dark uses internal tempo.	Auto
Pad 2	Lit forwards DIN MIDI IN to DIN MIDI OUT.	Thru on
Pad 5	Lit makes SCATTER ON momentary. Dark makes it latch.	Latch
Pad 6	Lit accepts timing clock while transport stays local. Dark accepts external transport.	External transport accepted
SCALE	Lit requires holding SCALE and turning TEMPO to change step scale.	Tap SCALE
TR-REC	Lit cycles strong, weak and off. Dark uses instrument-held entry for weak hits.	Instrument-held entry
KIT	Lit stores effect types per kit. Dark shares the four types across kits.	Per kit
A or B + source	Assign the instrument or EXT IN to that mono output. Tap again to return the source to MIX.	All to MIX
TAP + TEMPO	Screen-saver delay, Off or 1–60 minutes.	Off
DEPTH + SCATTER	Choose and preview one of six pad color schemes.	Palette 1

The shared-effects setting applies to algorithm choice. Pattern step lanes and individual kit sends retain their own settings. A source can feed one analog destination at a time. Its dry USB stem remains available.

TRGR8 uses stereo external input and independent hi-hat controls. Pads 3, 4, 7 and 8 have no setup function.

First session. When a DAW sends MIDI back to the TR-8, turn pad 2 off to avoid an echo. For a kick on its own output, hold A and tap BD. Tap BD again while holding A to return it to MIX and PHONES.

GETTING STARTED

Use the Librarian

Open the desktop Librarian and connect USB with TRGR8 in normal playing mode. Stop playback and let autosave finish. The app reads all 16 kits, all 16 patterns and onboard recordings. On later reads it reuses matching audio.

Build and send a kit

Choose New kit, name it, then drop a WAV on a strip. For a collection, choose Import → Choose folder and assign each file to an instrument. Select a strip and choose Audition. Sample settings change the tone. Strip mix sets gain, pan and sends for this kit. Built-in synths play on the instrument.

Choose Send to TR-8, select a slot from 1–16 and choose Queue and sync. The app saves the previous slot in the computer library first. Choose Refresh device to read panel edits. Auto-sync queued changes sends assigned kits or patterns while connected and stopped. When both copies changed, the app keeps both versions.

Make a backup you can move to another computer

Command	What the file contains
Save instrument	The selected sound, its edits and any user-sample audio.
Save file · kit	Eleven strips, tone selections, mix, sends, referenced samples and edits to built-in sounds.
Save file · pattern	Both variations, weak hits, flams, effect steps and parameter locks. Include the selected kit when exporting a song.
Export WAV	The original WAV when available. An onboard recording exports as decoded 24 kHz mono.

Export each pattern and kit you want to keep, plus any unused recordings. Drop the .trgr8 files back onto the app to restore them, then send to your chosen slots. Note device-wide settings separately.

Desktop setup On Apple Silicon, open the app bundle. On Windows x64, extract the entire portable ZIP and keep the DLLs beside the EXE. Windows uses WebView2. Linux uses WebKitGTK and USB permissions. Browser editing works offline. Choose the desktop app for USB sync.

Open the illustrated Librarian reference · pages 23–29

GETTING STARTED

Bring in the Roland factory sounds

Use your own original Roland TR-8 System Program v1.61. Importing it reads its sounds and presets into the local Librarian. You can do this with the TR-8 disconnected.

1 Import the original update on your computer

Download tr8_sys_v161.zip from Roland. Drop that ZIP, or its extracted TR8_UPD.BIN, onto the Librarian. You can also use Import → Choose files. The app verifies the exact v1.61 image before importing. If it rejects the file, select the original Roland download again. A TRGR8 update image and a standalone 7X7 expansion file are different formats.

Roland TR-8 System Program v1.61

2 Check the Factory library

Factory collection	What appears
32 PCM instruments	4 TR-909 waves, 14 TR-707 waves and 14 TR-727 waves. Select one under Instruments to audition it or use Export WAV at its native rate.
Kits and patterns	16 original kit presets and 16 original pattern presets. The app also builds two playable kits named TR-707 and TR-727.
Synthesized drums	The OS generates these voices when you play the instrument. Only the PCM sounds have source WAVs.

3 Play an imported kit on the TR-8

Reconnect in normal mode and stop playback. In Kits, filter to Factory and select TR-707 or TR-727. Choose Send to TR-8, select a kit slot and choose Queue and sync. On the panel, press DRUM SELECT KIT and tap that slot, then press INST PLAY and tap the instrument pads. Send a factory pattern separately to a pattern slot when you want its sequence too.

Factory sound storage Including the Roland ZIP during First Install uses the dedicated factory bank and keeps the full recording pool available. If the bank is empty, sending a kit with attached factory wave audio uses user tone pads and recording space.

OS AND AUDIO

Operating system specifications

These limits describe a TRGR8 session. Use them when planning a set, preparing a sample library or creating a DAW template.

Feature	Capacity or behavior
Drum engine	11 instrument lanes at 48 kHz. Each strip selects a synth, factory waveform or user recording.
Kits and patterns	16 kits and 16 patterns. Each pattern has A and B variations, up to 16 steps each.
Tempo and note data	40.0–300.0 BPM. Steps store hits, weak articulations and instrument locks. BD and SD can each lock five controls per step, including level.
Effects	Ten variants each of accent, reverb, delay, external sidechain and Scatter.
User sample storage	1.5 MiB shared across kits. Up to about 131 seconds of 24 kHz mono, 4-bit IMA ADPCM in one take.
Sound editing	Eleven parameters on samples and factory PCM. Six on synths. Twelve mute (choke) groups can combine all three sound sources.
USB audio	USB Audio Class 2.0, 24-bit PCM at 48 kHz. High-speed connections provide 14 inputs and 2 outputs. Full-speed connections provide stereo in and out.

Which settings belong to the sound?

Edits such as trim, filter and choke group follow the tone across kits. Each kit selects its tones and stores its own strip gain, pan and sends. Each pattern owns its two variations and effect steps. The power-on menu controls MIDI, output routing and other device-wide preferences.

OS AND AUDIO

Audio signal paths

Use the stereo MIX to capture the performance as heard, or take the dry drum channels into a DAW for independent processing.

Drum voices	→	Fader + kit gain	→	**USB 3–13** Mono per instrument
Rear EXT IN L/R	→	Level + sidechain	→	**USB 14 / sampler** Mono fold-down
MIX sources	→	Sends + returns, Scatter	→	**USB 1–2** Stereo master mix
DAW outputs 1–2	→	Monitor + master level	→	**MIX / PHONES** Stereo playback
A/B sources	→	Direct mono bus	→	**Jack A or B** Bypasses master FX

Recording taps are shown from the DAW's perspective. The DAW return joins the analog monitor after the USB recording tap.

What reaches each destination

Main mix. Panned drum voices feed the dry bus and selected reverb and delay sends. The wet returns and monitored external input join the mix before Scatter. Master VOLUME scales the stereo mix.

Assignable A and B. Assign a drum or EXT IN to one output in power-on settings. That source leaves the main mix and its shared effects. It still appears on its dedicated USB input. Each jack has a mono feed independent of master VOLUME.

External input. The external stereo pair has its own level and step-controlled sidechain. The sampler and USB input 14 take the mono average from this path. Opposite-polarity left and right signals can cancel when summed.

Recording example To print a stereo performance with Scatter and also keep a clean kick, arm DAW inputs 1–2 as a stereo track and input 3 as a mono track.

OS AND AUDIO

USB recording and playback

Select TRGR8-OS for input and output, set the DAW to 48 kHz and connect at USB high speed. Each recording channel carries 24 valid PCM bits in a four-byte slot.

DAW input	Source	DAW input	Source
1	MIX left	8	RS · Rim shot
2	MIX right	9	HC · Hand clap
3	BD · Bass drum	10	CH · Closed hi-hat
4	SD · Snare drum	11	OH · Open hi-hat
5	LT · Low tom	12	CC · Crash cymbal
6	MT · Mid tom	13	RC · Ride cymbal
7	HT · High tom	14	EXT IN · Mono

Capture and monitor

Create one stereo track for 1–2 and eleven mono tracks for 3–13. The dry drums follow their faders, kit gain and voice processing. Pan, shared reverb, delay, Scatter and master VOLUME belong to the stereo mix. Input 14 follows EXT IN LEVEL and sidechain.

Route DAW playback to outputs 1–2 for MIX and PHONES. If doubling or flanging appears while monitoring a live input, monitor that track in one place. The firmware excludes computer playback from all USB recording channels.

Connection formats

Connection	Record / play	Rate	Channels available
USB high speed	14 in / 2 out	48 kHz	MIX, drums, EXT IN
USB full speed	2 in / 2 out	48 kHz	Stereo MIX

TRGR8 uses USB Audio Class 2.0. Choose TRGR8-OS in your host's audio settings. If you see only stereo, check connection speed and enable individual inputs in the DAW.

OS AND AUDIO

Instrument and controller map

Program MIDI notes by number to avoid differences in octave naming between DAWs. The note sent by each strip is also accepted on input.

Strip	Note out	Alt. in	Tune CC	Decay CC	Level CC	Other CCs
BD	36	35	20	23	24	21 Attack / 22 Comp
SD	38	40	25	28	29	26 Snappy / 27 Comp
LT	43	41	46	47	48	—
MT	47	45	49	50	51	—
HT	50	48	52	53	54	—
RS	37	—	55	56	57	—
HC	39	—	58	59	60	—
CH	42	44	61	62	63	—
OH	46	—	80	81	82	—
CC	49	—	83	84	85	—
RC	51	—	86	87	88	—

Sound sources and kit mix

The eleven lanes can play modeled drums, factory PCM or user recordings. For example, the 909 family combines synthesized drums with PCM hats and cymbals when the donor bank is present. A kit remembers one tone per strip. In KIT, hold the instrument and turn TEMPO for strip gain (0–200, unity at 100). In INST, the same gesture adjusts pan from L64 through center to R63.

Live controls and step locks

Channel knobs and faders show 0–127 for two seconds. Their internal positions span 0–255. After editing a lock or receiving a remote change, turn an absolute control through its stored live value to pick it up.

In TR-REC select the instrument, hold its step and move one or more controls. BD and SD each support five locks on a single step including level. Other voices support tune, decay and level. Unlocked parameters use their current live values on the next hit.

Two different CLEAR gestures Hold the step, then press CLEAR to remove the instrument's locks and keep its hit. Hold CLEAR first, then tap the step to erase the hit and its locks.

SEQUENCING AND PROCESSING

Sequencer timing and step data

Each of the 16 patterns holds A and B variations with independent note and effect lanes. A variation contains up to 16 steps. Chaining A and B gives up to 32 positions.

Scale	Clocks per step	Step at 120 BPM	Step at 300 BPM
Eighth-note triplet	8	166.67 ms	66.67 ms
Sixteenth-note triplet	4	83.33 ms	33.33 ms
Sixteenth note	6	125.00 ms	50.00 ms
Thirty-second note	3	62.50 ms	25.00 ms

Nominal straight timing. One quarter note is 60,000 ÷ BPM milliseconds. One MIDI timing clock is 1/24 of that interval. On internal clock, SHUFFLE offsets alternating steps in opposite directions by up to about one-third of their straight interval. Incoming clock uses pulse divisions.

What belongs to a step

Instrument lane. A step can carry a hit, weak articulation and that instrument's parameter locks. Holding an empty step and adjusting a channel control adds the hit. In INST REC, live playing writes into the running variation.

Effect lanes. Accent, reverb, delay and external sidechain have separate 16-step rows. An accented step affects sounding drums. Reverb and delay also require the instrument's kit send. A sidechain step can trigger with every drum muted.

Pattern selection. PTN SELECT queues a pattern or a contiguous range. LAST STEP sets the variation length. A locked pattern allows temporary edits that are discarded on leaving it or rebooting.

Performance state

In INST PLAY, pad 16 cycles through blinking red mute editing, blinking blue solo editing and steady red play. The first solo you select clears active mutes and the first mute clears active solos. Hold pad 16 and press CLEAR to restore all voices. A stopped autosave recalls the selection on restart. For per-tone mute groups, see page 17.

SEQUENCING AND PROCESSING

MIDI messages and clock

Use DIN or USB MIDI in normal playing mode. The rhythm channel defaults to 10. Set it at power-on if an external sequencer uses a different channel.

Message	Firmware behavior
Note On	Accepts the note numbers on page 10. Velocity 1–127 triggers a hit. Values 110–127 request an accent. Outgoing releases use Note On with velocity zero.
Program Change	Incoming program numbers 0–15 select kits 1–16. A DAW may display those programs as 1–16.
Timing Clock · F8	24 pulses per quarter note. In Auto, a live USB clock takes priority over DIN. The firmware releases an external clock after 500 ms without a pulse.
Start / Continue / Stop	FA and FB start playback, FC stops it. Power-on pad 6 allows external clock with local transport control.
DIN Thru	Forwards the DIN input byte stream to DIN OUT, including realtime and SysEx. Locally generated events share the DIN bandwidth.

Global control changes

CC	Parameter	CC	Parameter
9	Shuffle	71	Accent level
12	External input level	89	Reverb time
13	External sidechain amount	90	Reverb gate / character
16	Delay level	91	Reverb level
17	Delay time	68	Scatter type · 10 positions
18	Delay feedback	69	Scatter depth · 10 positions
—	Master VOLUME and FINE are local controls	70	Scatter off 0–63, on 64–127

The mapped absolute controls accept 0–127. Scatter type and depth map the full range across ten positions. Omni receives rhythm messages on every channel and sends local channel messages on 10. Select Off to suppress local MIDI output. Check pad 2 separately if DIN Thru is active.

SEQUENCING AND PROCESSING

Accent and Scatter

Accent changes the hit at its source. Scatter rearranges time slices of the stereo performance. Both can change the rhythm while the sequencer continues through its steps.

Ring	Accent display	At higher ACCENT LEVEL	Scatter type
1	CLAS	Raises hit velocity.	Beat repeat
2	SnAP	Adds a stick transient of about 6 ms.	Reverse
3	droP	Bends down into tune over about 64 ms.	Ratchet
4	ScoP	Bends up into tune over about 128 ms.	Live gate
5	StAr	Cycles root, minor third, fifth, minor third.	Pair exchange
6	CHoP	Shortens decay.	Bidirectional scratch
7	bArk	Adds asymmetric saturation.	Four-step rewind
8	StEL	Adds two inharmonic shell resonances.	Triplet roll
9	HAnd	Alternates higher and lower strikes.	Reverse ratchet
10	doub	Adds a late hit, roughly 3–46 ms, capped at half a step.	Break fill

Selecting and triggering

Accent. Hold ACCENT STEP and turn SCATTER to choose a variation. In TR-REC, light steps in the accent row. All sounding instruments on each marked step receive the articulation after parameter locks. Set LEVEL to zero for an ordinary hit.

Scatter. Turn the free SCATTER dial for type 1–10. Press DEPTH and turn it for depth 1–10. Press ON to engage. DEPTH + ON engages it for the remainder of the current pattern cycle. The first cycle after starting usually passes dry while the history fills.

Audition Put a kick on step 1, choose Scatter type 1 at depth 10, enable Scatter and let the pattern loop twice. This gives the repeat a clear transient to capture.

SEQUENCING AND PROCESSING

Reverb and delay

Each effect has ten algorithms, per-instrument kit sends and a separate pattern step lane. Hold the effect's STEP button and turn SCATTER to choose the algorithm. Release STEP to restore the Scatter controls.

Ring	Reverb	GATE / character	Tail[1]	Delay	Repeat[1]
1	Room	Gate hold	1 beat	Echo	¼
2	tiLE	Reflection brightness	½ beat	Pong	Dotted ¼
3	PLAt	High-frequency sheen	2 beats	tAPE	Dotted ⅛
4	SPrg	Spring dispersion	1 beat	bUCt	⅛
5	Chbr	Early reflections	2 beats	HEAd	Dotted ¼[2]
6	GAtE	Gate duration	1 beat	rEvr	¼
7	bLom	Reverse-grain blend	2 beats	Sync	Dotted ¼
8	SLAP	Stereo slap level	½ beat	dUCK	¼
9	Cath	Stereo width	4 beats	FLAm	1/32
10	dEEP	Slow stereo motion	8 beats	rAtC	Dotted ¼[2]

[1] With TIME fully clockwise. Reverb times are nominal decays in quarter-note beats. Delay values are musical note lengths. [2] Total span across three heads or four ratchet taps.

Clock sync and sends

Either TIME knob fully clockwise follows internal tempo, tap tempo or incoming MIDI clock. The display briefly shows Sync. Below the end stop, Pong, Sync and Ratchet offer eight divisions from a 32nd to a dotted quarter. Other delays return to their own time ranges.

LEVEL sets the wet return. FEEDBACK governs repeating energy in the delay. In KIT mode hold an effect STEP button and tap an instrument button to toggle its send. In TR-REC, light the times when that send should open. For a single wet kick, enable only the BD send and mark its step in the reverb lane.

Clear one lane Hold the effect STEP button, then press CLEAR. This erases all 16 effect steps in the selected pattern variation. Existing tails decay normally.

SEQUENCING AND PROCESSING

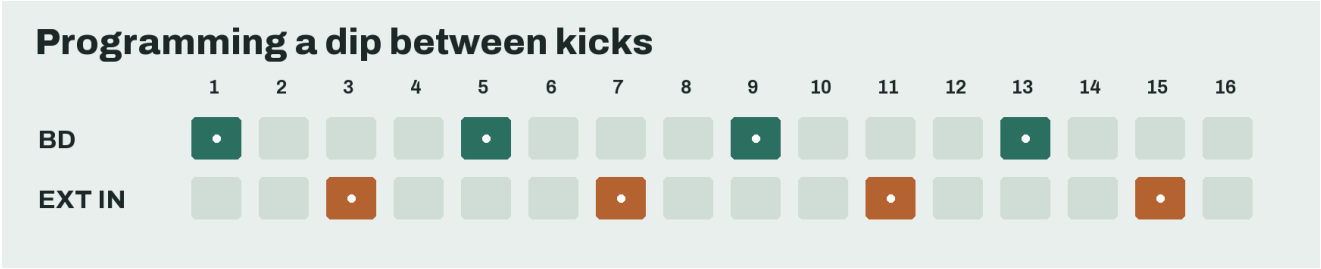
External input and sidechain

Feed a stereo line source to EXT IN L/R. LEVEL sets its monitored gain. SIDE CHAIN sets the depth of the selected envelope or filter. The external input has its own trigger row.

Ring	Display	Response to one lit EXT IN step
1	dUCK	Dips both channels with fixed-time recovery. Attack is about 4 ms.
2	PUMP	Swells back toward full level on the offbeat eighth.
3	HoLd	Holds the dip for a sixteenth, then releases over an eighth.
4	doub	Adds a second, shallower dip a dotted eighth later.
5	triP	Three successively lighter dips, one-third of a beat apart.
6	Chop	Chops four sixteenth notes over one beat, with ramped edges.
7	LoDU	Ducks the low band around a 180 Hz crossover.
8	FiLt	Darkens the signal and opens the filter over one beat.
9	PAn	Ducks alternate stereo sides on successive lit steps.
10	GAtE	Opens through each lit step. Adjacent lit steps form one gate.

Align a duck with a kick

Select EXT IN STEP in TR-REC and light the steps where the kick should open a dip. For four-on-the-floor in a 16-step pattern, put BD and EXT IN steps on 1, 5, 9 and 13. The programmed sidechain still runs when the BD is muted. This also lets the input pump on steps with no drum.



Here the duck starts two sixteenth notes after each kick. Move the four EXT IN steps onto the BD steps to align the dip with the drum.

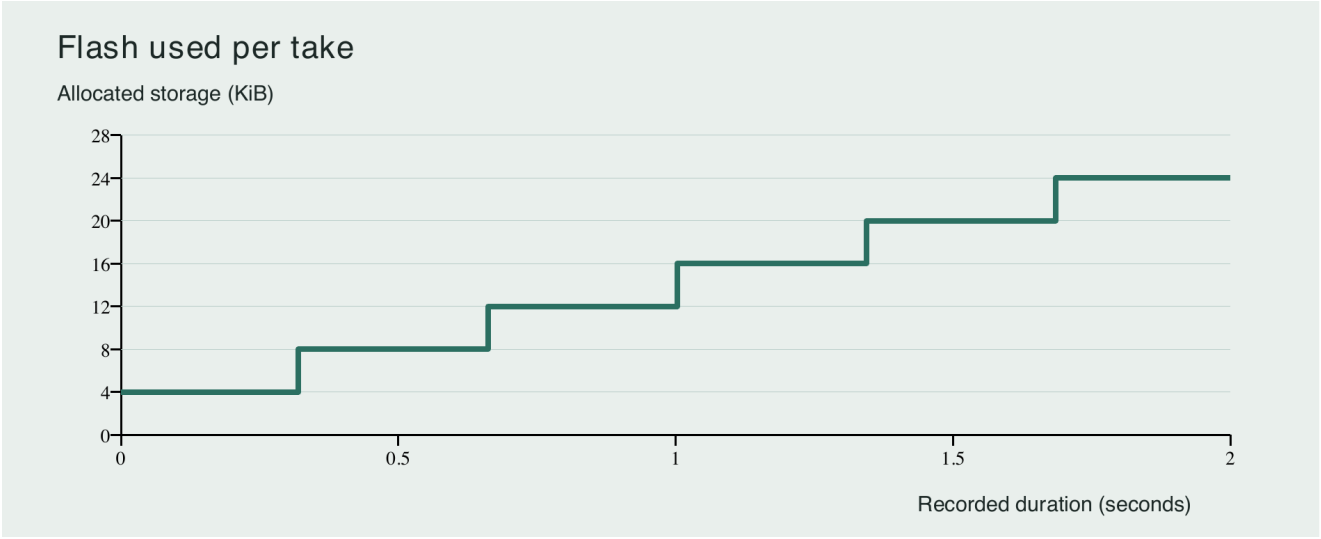
An empty external lane passes the input. Stopping playback opens the input for monitoring. Sampling and USB input 14 include the current external level and sidechain. Set the depth before recording if you want the movement printed into the take.

SAMPLING AND SETTINGS

Sample format and capacity

All kits share 1.5 MiB of recording space. Recordings belong to instrument tone pads. Each kit stores its own selected pad for each of the eleven instruments.

Recording format	Allocation
Mono IMA ADPCM, 4 bits per encoded sample	24,000 source frames/s, about 12,000 audio bytes/s.
Allocation in 4 KiB units	Each take includes 256 bytes of metadata and rounds up to the next whole allocation unit.
About 131.05 s for one continuous take	Numerous short takes share the same byte budget. The Librarian reports the actual free space.



For N frames, allocate 4,096 × ceil((256 + floor(N/2)) / 4,096) bytes. A 100 ms hit uses 4 KiB, a one-second hit 12 KiB, and a two-second hit 24 KiB.

Recording behavior

In DRUM SELECT INST choose a strip and its first free tone pad. Tap once for standby, again to record, and again to stop. A 15-tap low-pass filter precedes 48-to-24 kHz conversion. The recorder waits for signal, retains up to 32 pre-roll frames and trims trailing silence to about 6 ms. A silent take leaves the pad available.

BD, LT, MT, HT, RS and HC have three built-in tone positions each. SD, CH, OH, CC and RC have two. The remaining positions on their 16-pad rows provide up to 148 user tone positions, subject to free sample space. The recorder saves automatically when full.

SAMPLING AND SETTINGS

Tone editor parameters

Edit opens after recording. In DRUM SELECT INST, hold an occupied tone pad for two seconds, or hold INST for two seconds to edit the current assignment. The gold pad auditions at full strip level and velocity. Master VOLUME sets the listening level.

Fader	Display	Range and behavior
BD	tYPE	Shot plays to the end before taking another hit. triG retriggers immediately. Loop repeats between the loop point and end.
SD	GAIn	0–6400% sample gain. Center is unity (100%). Maximum is 64×, about +36 dB.
LT	Ptch	−12 to +12 semitones. TEMPO moves one semitone per detent.
MT	Strt	First playable source frame. The display normally shows a coarse percentage.
HT	End	Last playable source frame. Maintains a playable span with Start.
RS	LPnt	Loop return point, kept within the playable range.
HC	Atck	Attack envelope, approximately 0–1,000 ms.
CH	dEcY	Finite decay from about 2 ms to about 2 s. FULL plays the natural tail.
OH	rEv	Forward or reverse playback.
CC	ChGr	OFF or 1–12. A hit cuts off other sounding members, including synths, factory waves and user recordings.
RC	FiLt	Low-pass cutoff, shown as 0–100. Full cutoff bypasses the filter.

Fader, wheel and audition behavior

Recordings and factory PCM use all eleven controls. Synths light SD, LT, HC, CH, CC and RC. Tap a lit instrument button to select a parameter. Move its fader for coarse changes or turn TEMPO for fine changes. A marker click moves one source frame. Start and End keep at least 32 frames, or the whole sound if shorter.

Moving a marker preserves the playback position while it stays inside the new region. A new hit starts at Start, or at End in reverse. After a wheel edit, move the fader through the new value to pick it up. Hold the gold pad two seconds or press a button outside the editor controls to exit. Edits follow the tone across kits.

STUDIO REFERENCE

Update or recover TRGR8

Connect your TR-8 in normal playing mode and choose Install or update OS in the desktop Librarian. Compare the installed and included versions. If the app reports that your instrument is up to date, you can return to your session.

During an update	What you will see
Update TRGR8	Click Update TRGR8 to authorize the transfer and restart. Stop playback, finish sampling and release the controls. The app waits for the instrument to finish saving.
Backup and transfer	The Librarian saves a Session.zip backup, shows its location and writes the new OS to the spare slot. Keep USB and power connected.
Restart and confirmation	The instrument restarts. Leave USB connected until the app confirms the running version. Kits, patterns, recordings and device settings carry over. If the previous OS starts, the app shows which version is running.

Update with Finder or File Explorer

Power off. Hold pad 1 while powering on, release it, then connect USB. Drag the Update file to the top level of the TR-8 drive. When the copy finishes, eject the drive and unplug USB. Press pad 2 when it blinks. Keep power connected until BD through RC and all sixteen pads blink together. Power-cycle normally, reconnect USB and check a familiar pattern and recording.

If an update stops

If the file copy fails before you press pad 2, leave the instrument in update mode and repeat the copy from the original Update download. If flashing has started, keep power connected and wait for the finish lights. If the display reports an error, write down the code and file you used before retrying.

To use a Librarian update backup, extract Session.zip on your computer. Drop individual .trgr8 files into the Librarian and send the kits or patterns to their intended slots. The Instruments folder contains separate takes. Keep any written notes on global settings with your backup.

Recovery on startup A normal boot shows TrG8 and then the tempo. If the instrument starts in recovery instead, use the recovery instructions for your installed version. A flashing rEC while sampling in a running session means the sampler is recording.

STUDIO REFERENCE

USB and MIDI connections

Start with the connection that matches the job. The same rear USB cable serves different purposes depending on how the instrument starts.

What you want to do	Connection and startup
Use the Librarian	Boot normally and connect a USB data cable. The desktop app shows the instrument and available recording space.
Record drums into a DAW	Select TRGR8-OS for input. Use a high-speed connection at 48 kHz. See page 9 for the channel list.
Play the DAW through the TR-8	Set TRGR8-OS as the output and route the master to outputs 1–2. Listen through MIX or PHONES.
Use an external MIDI clock	In power-on settings, light pad 1 for Auto. With both clocks running, USB takes precedence over DIN.
Copy an OS file	Start up holding pad 1. The TR-8 appears as a drive. Follow the update instructions on page 18.

If devices appear twice

Choose one route for incoming notes and clock. With both DIN cables connected, turn off MIDI Thru if the DAW echoes the input. In a DAW, choose either direct or software monitoring when listening to one live sound.

STUDIO REFERENCE

Set up a multitrack session

Record the performed stereo mix and individual instruments in the same take. A dry kick track lets you change its processing later, while the stereo track preserves your Scatter and effects moves.

DAW tracks	Input and use
One stereo track	Inputs 1–2 record the main mix with its shared effects.
Eleven mono drum tracks	Inputs 3–13 follow BD to RC in front-panel order. Name each track after its strip.
One mono external track	Input 14 follows EXT IN LEVEL and sidechain. The left and right external signals are summed to mono.
Stereo return	Outputs 1–2 send DAW playback to MIX and PHONES. The return stays outside the recorded inputs.

Check the input order by ear

Arm the tracks. Tap BD in INST PLAY and listen to DAW input 3, then tap SD and listen to input 4. Continue across the strips. For EXT IN, play a sustained sound and check input 14. Finally arm the stereo mix and make one pass with Scatter on.

Avoid double monitoring When listening to the main mix, mute monitoring on the dry tracks unless you deliberately want to combine both signals.

STUDIO REFERENCE

Troubleshooting

Listen at each destination in order. A dry drum input can confirm the voice is playing even when the stereo mix is quiet.

Observation	What to check
The pads light but the drum is silent	Check mute/solo, the instrument fader and the selected tone. Listen to the drum's dedicated USB channel. If it has signal, inspect A/B assignment and master VOLUME.
The stereo recording misses one drum	A sound assigned to A or B leaves MIX. Return it to MIX in power-on settings, record the physical assignable jack, or arm its dedicated dry USB channel.
Only two DAW inputs appear	Choose TRGR8-OS and enable mono inputs in the DAW. Check the firmware version, 48 kHz setting and a high-speed USB connection. Full-speed mode provides stereo.
The interface plays but capture is silent	On macOS, allow the recording application microphone access, then reopen its stream. Check channel selection and arm the intended track.
The sampler reports noIn or the take is very quiet	Check the rear EXT IN signal, its level and sidechain. Test each side separately if a stereo source disappears in the mono sum. Audition in Edit to evaluate sample gain.
A trim or choke cuts off a sound	Inspect Start, End, Loop, mode, envelope and choke group. In Edit, press the marker's instrument button and turn TEMPO to examine one-frame changes.
MIDI notes repeat or tempo jumps	Check for a returning DIN or DAW route. Turn off DIN Thru on setup pad 2 when the DAW supplies the same return. Choose one clock master.
Audio breaks up during recording	Make a short recording of the stereo mix and the affected dry track. Lower the input or sample gain to check for clipping. In the DAW try a larger audio buffer and a direct USB connection.
A new sound is missing after recall	Check its instrument tone pad and the kit's selection. Allow the instrument to finish saving, refresh the Librarian and confirm free bytes and the referenced audio.

When asking for help Include the installed OS version, your computer or mobile device, DAW, kit, pattern, tempo, output assignment and the gesture that caused the problem. A short audio example helps.

STUDIO REFERENCE

Panel display reference

Read the display together with the pad color. The same pad can select a sound, start a recording or audition an edit.

Display or light	Meaning and next action
TrG8	Startup greeting. Tempo appears when the instrument is ready.
Stby · solid gold pad	The sampler is armed. Adjust EXT IN LEVEL, then tap the same pad to record.
rEC · blinking gold pad	The sampler is recording. Tap the same pad again to finish.
SAVE	Leave power connected while the take is saved.
Edit · gold pad	Tap to audition. Move a lit fader to edit. Press its instrument button to select it, then turn TEMPO for fine changes.
noIn	The recorder detected silence. Check the source and EXT IN LEVEL, then rearm the tone pad.
ChGr	Mute group. OFF allows the tone to ring independently. Group 1–12 lets another member end its tail.
Pad 16 · blinking red or blue	In INST PLAY, red selects mutes and blue selects solos. Hold pad 16 and press CLEAR to hear every instrument.

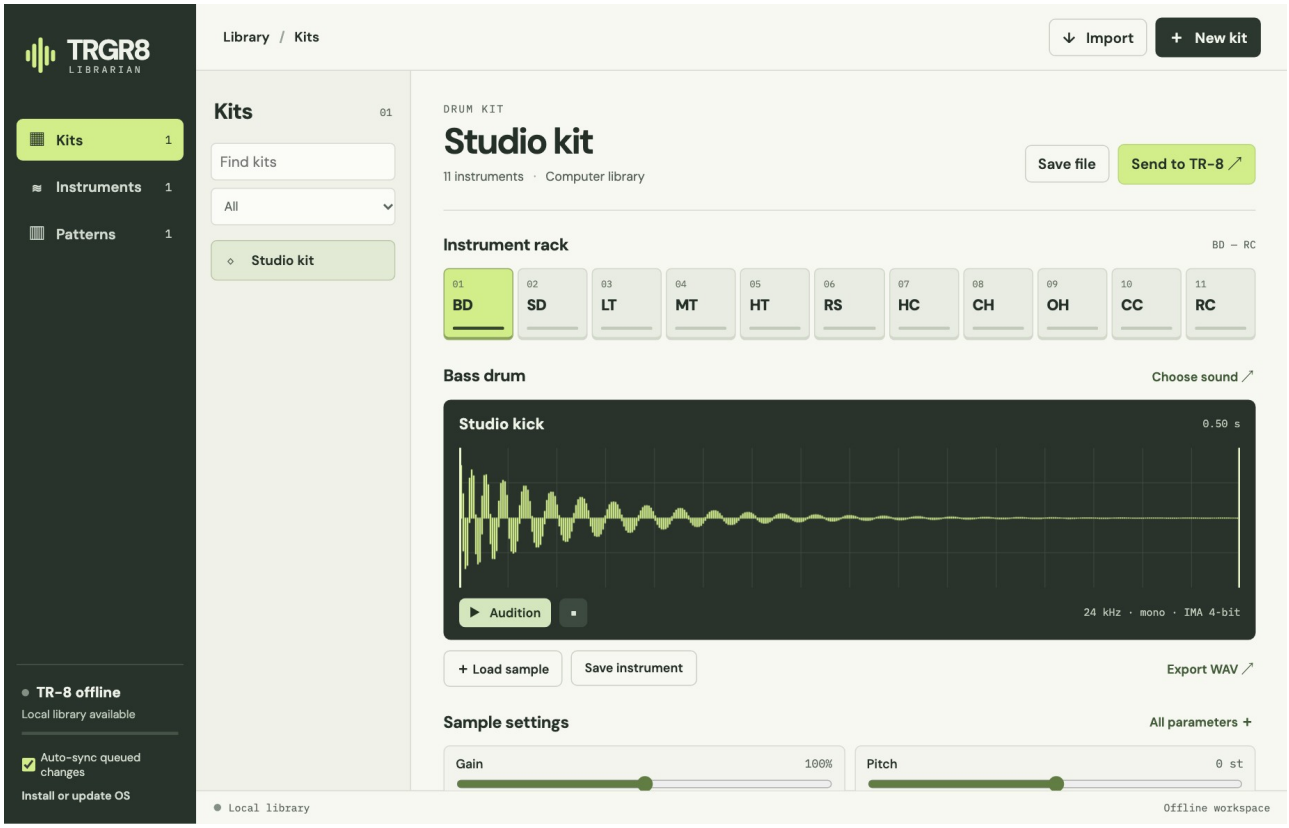
Where to look next

See the User Guide for hands-on examples, the Cheat Sheet for panel shortcuts and page 21 here for troubleshooting.

LIBRARIAN REFERENCE

Find your way around the Librarian

The computer library is available whenever you open the app. You can build a kit, edit a pattern and save files offline. Connect the TR-8 when you want to hear its own sound engine or transfer your work.



Find a sound, kit or pattern

Choose Kits, Instruments or Patterns in the dark sidebar. Type part of a name in Find. The collection menu filters to All or Factory. Kits and Patterns also offer Device for entries assigned to hardware slots. Click the large kit or pattern name to rename it. A number beside an entry is its slot, a diamond marks a computer entry, and an up arrow marks a queued transfer.

Jump to a task

24 Build a kit · 25 Edit a sample · 26 Program a pattern

27 Send and sync · 28 Save and restore · 29 Solve transfer problems

LIBRARIAN REFERENCE

Build a kit from your sounds

Start in Kits and choose New kit. Click the name above the rack and type your own. Each of the eleven strips, from bass drum (BD) to ride cymbal (RC), holds one selected instrument.

Choose how to bring sounds in

Starting material	What to do
One audio file	Drop it directly on a rack strip, or select the strip and choose Load sample. Its name and waveform appear below the rack.
A folder of drum hits	Under Import, select Choose folder, or drag the folder onto the app. In Assign samples, review the suggested strips. Names such as “kick” or “closed hat” help the app guess. Choose a strip for every row, then click Import.
A sound already in the library	Select a strip, click Choose sound, pick a named instrument or one of that strip’s built-in tones, then choose Assign sound.
Loose samples for later	Open Instruments and choose Add instrument, or use Choose files in Import. Assign a strip when prompted. You can pick the sound for a kit later.
Roland factory sounds	Import your original Roland v1.61 ZIP or its extracted BIN. See page 6 for the 32 waves and the included kits and patterns.

If several files go to one strip, the last one in the assignment list becomes its kit sound. Every imported file remains available under Instruments.

Set the balance for this kit

Select a strip and expand Strip mix. Kit gain runs from 0 to 200, with 100 as the starting level. Pan runs from –64 (left) through 0 (center) to +63 (right). Reverb send and Delay send make this strip eligible for those effects when their steps are active. Repeat for the other strips.

Audio formats and size

Use WAV, AIFF, MP3, FLAC, Ogg or M4A. Codec support depends on the computer. If a file fails to decode, try a PCM WAV. Imports accept up to 100 MB per file and about 131 seconds of audio. User samples play on the TR-8 at 24 kHz mono in 4-bit IMA ADPCM. Stereo channels are averaged.

LIBRARIAN REFERENCE

Edit and audition a sample

In Kits, select the strip. In Instruments, select the sound. Audition plays the sample through your computer's selected audio output. Click the square Stop button to end playback. Press Audition again to hear a new edit, or to stop a loop that is already playing. With the main window focused and no field selected, Space auditions the sample. Escape stops a preview.

Read the waveform

The bright area between the two vertical lines is the playable region. Use the sliders below it to move its edges. Sample settings opens with Gain, Pitch, Start and End. Choose All parameters to show every control, or Less to return.

Control	What it changes
Mode	One shot lets the hit finish on the TR-8. Trigger restarts on the next hit. Loop repeats from Loop point when it reaches End in forward playback.
Gain	Changes this sound's playback level from 0 to 6400%. Set 100% for unity. Use Strip mix to change its level in just one kit.
Pitch	Transposes playback by up to 12 semitones in either direction. Raising pitch also shortens the hit.
Start · End · Loop point	Positions are in source frames. The loop point stays inside the trim. Start and End keep at least 32 frames, or the whole sound if it is shorter.
Attack · Decay	Attack fades in over 0 to about 1,000 ms. Decay ranges from about 2 ms to 2 seconds. Full lets the natural tail play.
Reverse	Plays the trimmed region backward, beginning at End.
Choke group	0 is off. Give two sounds the same group (1–12) so a hit cuts off the other sound on the TR-8. Try this with closed and open hats.
Filter	Low-pass cutoff, shown as a percentage. Lower it to soften the high frequencies. At 100% the filter is open.

Which sounds can you edit here?

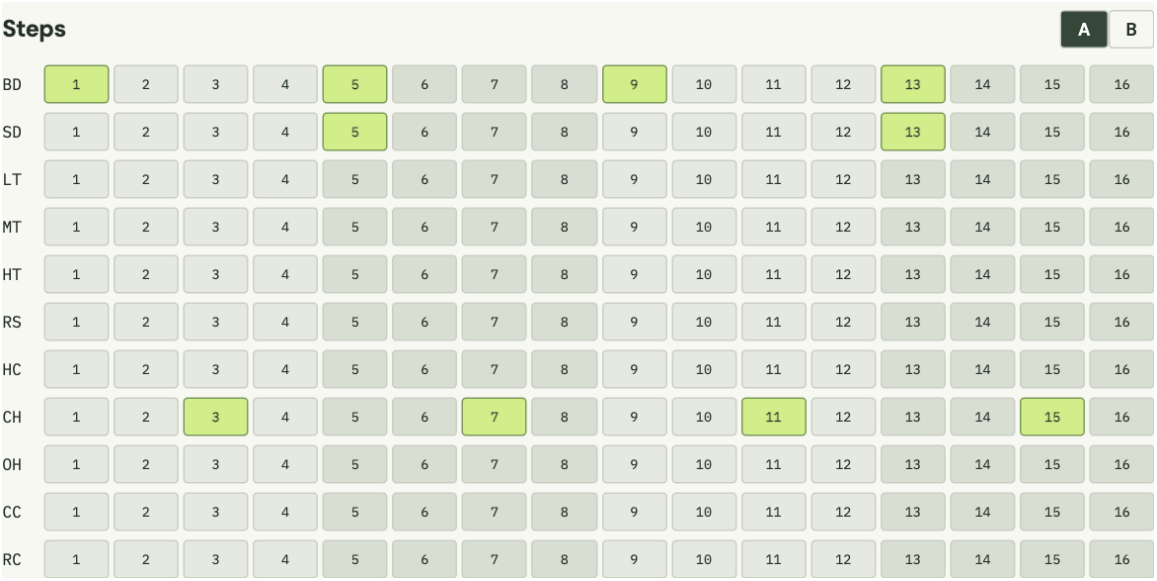
These sliders appear for user samples with audio. An imported factory waveform can be previewed and exported. Edit factory PCM and built-in synth tones on the instrument (page 17), then refresh the device. The Librarian carries those panel edits with a saved kit. Built-in synths are auditioned on the TR-8.

Several kits can share a user sample. For an independent copy, save the instrument as a .trgr8 file, import it again and assign the new copy before editing. An edited user sample may need another hardware tone pad.

LIBRARIAN REFERENCE

Program a pattern on the computer

Open Patterns, choose New pattern and click its name to rename it. Each row is an instrument and each column is a step. Select A or B above the grid. Click a cell to add a hit and click it again to remove it.



Program a house beat

In A, click BD on 1, 5, 9 and 13. Add SD on 5 and 13 and CH on 3, 7, 11 and 15. Switch to B and enter a fill, then return to A to see your first variation. To hear it, send the pattern to a slot and select that slot with PTN SELECT on the TR-8. Choose the kit on the panel and press START/STOP.

What travels with the pattern

The desktop grid edits hit placement. Program weak hits, flams, accent, effect steps and parameter locks on the TR-8. Stop, choose Refresh device and save the pattern file to keep both variations and those performance details together.

Share the pattern with its sounds

Select the intended kit in Kits, return to Patterns, choose Save file and tick Include followed by the kit name. Check that name before saving. On import, the kit and pattern appear in their own collections. Send each to the slot you want.

LIBRARIAN REFERENCE

Send and sync with the TR-8

Boot the TR-8 normally, connect it with a USB data cable and open the desktop app. Watch for TR-8 connected in the sidebar. On connection the app reads the 16 kit slots, 16 pattern slots and onboard recordings. The first read can take longer because it includes the audio.

Put a kit or pattern in a slot

Select the entry and choose Send to TR-8. In Device slot, pick 01–16 and check the destination. Choose Queue and sync. The Librarian keeps the previous slot entry as a computer copy. Stop playback, finish sampling and let the instrument save. Keep the app open until the transfer completes.

For a single instrument, assign it to a strip in a kit and send that kit. The app reuses a matching tone on that strip when both its audio and edits match. Otherwise it places the recording on the next free tone pad for that instrument.

When you are working	How transfers behave
Away from the TR-8	Pick a slot and choose Queue for connection. With Auto-sync queued changes on, reconnect in normal mode and stop playback to send it.
Editing an assigned entry	After you assign an entry with Send to TR-8, later changes to it are queued. Editing a shared sample can queue several assigned kits. Computer-only entries stay in the library until you choose a destination.
Controlling the timing	Turn off Auto-sync queued changes to hold later edits. When ready, stop playback and choose Refresh device. Refresh reads panel changes and processes queued transfers.
Both versions changed	Refresh device keeps your edit as a separate local copy and reads the hardware version. Find the entries under All, compare them, and send the version you want to the intended slot.

Watch pads and recording space

The sidebar shows free KiB and an estimate of recording seconds. Each new sample needs both a free pad on its strip and enough shared bytes. Replacing a kit leaves its old recordings on the unit. See page 16 for capacity and page 29 for ways to finish a transfer.

LIBRARIAN REFERENCE

Back up and restore your music

The Librarian remembers your workspace on this computer. To take your music to another computer, or keep a copy on a backup drive, export the entries as files.

What to keep	How to save it
One instrument	In Instruments, choose Save file. In a kit, select the strip and choose Save instrument. A .trgr8 file keeps its playback settings and available sample audio. A built-in tone travels as a tone selection and its settings.
A complete kit	In Kits, choose Save file. This includes all eleven assignments, strip mix, effect sends, referenced sample audio and tone edits.
A pattern or song	In Patterns, choose Save file. Include the selected kit and its samples if you want them in the same package. A pattern alone holds the sequence and performance data.
Audio for a DAW	Choose Export WAV for a sound with a waveform. An original WAV is returned when available, including an imported factory wave at its native rate. A take read from the TR-8 exports as decoded 24 kHz mono. Gain, pitch, trim and other playback edits are stored in .trgr8 files. To record those edits as performed, play the sound into a DAW.

Make a backup from your TR-8

Connect, stop and choose Refresh device. Use the Device collection in Kits and Patterns to find the numbered slots. Save the ones you want to keep. Also export any takes in Instruments that no saved kit uses. Keep notes on device-wide settings separately.

Restore a backup or move to another computer

Drop a .trgr8 file into the app or use Choose files in Import. Imported kits and patterns start as local entries. Send the kit and the pattern separately, then select both on the panel. To restore an unused take to a tone pad, assign it to a kit strip and send that kit.

During a routine OS update the app makes a Session.zip covering all device slots and recordings. In Install or update OS, use Open backups folder. Extract the ZIP first, then import the .trgr8 files from Kits, Patterns or Instruments. The stock backup from a first installation uses Roland's own format (page 3).

LIBRARIAN REFERENCE

Solve Librarian transfer problems

Start with the status in the sidebar, the message at the bottom of the window and the slot you selected. The steps below keep the computer and hardware versions available while you resolve the problem.

What you see	What to do
TR-8 offline	For music transfers, power on normally, connect a USB data cable and open the desktop app. The pad-1 update drive is for installing an OS file. The local library stays available while disconnected.
Queued after you send	Stop the sequencer, finish recording and release the panel controls. Check Auto-sync queued changes, or click Refresh device when stopped. Leave the app open until the transfer finishes.
The slot or sample changed	Click Refresh device. Under All, compare the numbered hardware entry and the local copy before sending again. After an interrupted transfer, reconnect and refresh so the app can check what was saved.
No free tone pads	The chosen strip has used its available pad positions. Reuse an existing tone with matching edits, or assign the new sound to a different strip with space.
The kit needs more bytes	Use a shorter source file, or reuse recordings already on the unit. Moving Start or End changes playback while retaining the whole source. To reduce storage, shorten the audio in an audio editor and import the shorter file.
A factory sound is missing	Import your original Roland v1.61 into the library so the kit can include the waveform. With the matching factory bank installed, factory references play directly. An empty bank needs attached audio and a free user pad.
Two strips need different edits of one factory wave	Hardware strips using the same factory reference share its edits. To give one its own settings, export its WAV, load that WAV as a user sample on the second strip, then set its parameters and send the kit.

If you are installing the OS

Open Install or update OS. Page 3 covers the stock backup, optional factory waves and first installation. Page 18 covers routine updates, the music backup, file transfer and recovery. In drive mode, expand Install using a file and choose Save TR8_UPD.BIN to save the matching file for Finder or File Explorer. Use First Install on stock and Update on an existing TRGR8. During a routine update, Cancel update is available while the app is waiting for the instrument to become idle.