Rise Keys RK-1

The manual. Every feature, in order, with nothing left out — the patch list, the lesson catalogue, every setting and its range.

Software version 1.1
risekeys.com

Contents

1. Setting up

What came in the box

The RK-1, a UL-listed USB-C power supply, one keyboard cable matched to your keyboard, and a quick-start card. Nothing else is required: no computer, no audio interface, no app, no account, no speakers.

Turn your volume down first

Before anything makes a sound, turn down whatever you will be listening through — the box's own speaker, your headphones, or your amp. Bring it up once you hear the first note. A keyboard you have never heard through this box can be louder than you expect, and headphones are unforgiving.

Connect

Everything is on the back panel, left to right:

Socket	What goes in it
MIDI IN	A 5-pin MIDI cable from your keyboard's MIDI OUT
MIDI OUT	To a hardware synth or interface, carrying corrected notes
KEYBOARD	Your keyboard's USB cable (this is a powered host port)
POWER	The supplied USB-C adapter
PHONES	Headphones — inserting a plug mutes the speaker
AUDIO IN	A phone or laptop, to play along with a track
SUSTAIN	A sustain pedal, any polarity

USB or MIDI, one or the other. If your keyboard has a USB port labelled USB TO HOST, use it. If it only has round 5-pin sockets, run a MIDI cable from its **OUT** to the box's **IN** — out to in.

Power on. The box boots in a few seconds and the screen tells you what it can see.

What happens when you plug it in

Both button rings breathe together within a couple of seconds — that is the box telling you it has power, before it can tell you anything else. The screen lights a moment later with **RISE KEYS** and your unit number.

The RK-1 is a small computer, and a computer takes about half a minute to be ready. During that time the rings keep breathing. When they stop and the screen shows your key and tempo, it is listening.

Nothing is wrong if it takes 30 to 45 seconds the first time. If the rings never light at all, the power supply is the first thing to suspect (§18).

If your keyboard makes its own sound, silence it

Do this before anything else. Every digital piano and every arranger keyboard has its own sounds and its own speakers. If you leave them on, you will hear two things at once: your keyboard playing the note you pressed, and the RK-1 playing the note it corrected. The wrong note comes out anyway, and it will seem as though the box does not work.

It does work. You are just listening to the keyboard as well.

Two ways to fix it, best first:

1. **Local Control off.** Almost every keyboard with built-in sounds has this, usually under Function, MIDI or Settings. It stops the keys from triggering the keyboard's own sound engine while still sending MIDI out normally. This is the proper answer: the keyboard becomes a controller, the RK-1 becomes the instrument.
2. **Turn its volume all the way down.** Cruder, works everywhere, and takes one second. The keyboard is still generating sound internally, so if you ever plug headphones into the keyboard you will hear it again.

A silent controller — a 25 or 49-key board with no speakers — needs neither. There is nothing to silence. Plug in and play.

Your first two minutes

1. Play anything. The ASSIST button sits **amber** while the box listens.
2. After about four chord changes it works out your key, turns **green**, and starts helping.
3. That pause is deliberate. It would rather be right than fast.

That is the whole setup. Everything below is optional.

Wi-Fi and the dashboard

The dashboard is a web page the box serves to your own network. It is optional — correction, sustain, sounds, and the metronome all work with no Wi-Fi at all — but it is where the lessons, charts and recordings live.

If the box cannot find a network it knows, it makes its own:

1. On your phone, join the Wi-Fi network **RK-1-Setup** (password on the quick-start card).
2. A setup page opens. Pick your home network and enter its password once.
3. The box joins, its own network disappears, and the dashboard address appears on the box's screen.

From then on, open **http://rk1.local** in any browser on your network. Nothing to install. If the password was wrong, the setup network comes straight back — you are never stranded.

2. The box itself

The two buttons

ASSIST (green) — turns note correction on and off. Off means off; this is a physical switch, not a suggestion.

- **Amber** — listening, working out your key
- **Green** — correcting
- **Off** — you switched it off

SUSTAIN (amber) — turns the automatic pedal on and off.

Both buttons together at power-on enters **recovery mode** (§13).

Changing key without touching a screen

Two buttons, three gestures. Singers and worship players change key between songs constantly, and nobody wants to find their phone mid-set.

Gesture	Does
Tap ASSIST	Correction on or off
Tap SUSTAIN	Automatic pedal on or off
Hold SUSTAIN, tap ASSIST	Transpose up a semitone
Hold ASSIST, tap SUSTAIN	Transpose down a semitone
Hold both for two seconds	Back to concert pitch

The screen shows the new value for a moment each time — transpose +2, or concert pitch when you reset. Range is a full octave either way. Holding one and tapping the other repeatedly walks the key up or down as fast as you can tap.

The button you hold does **not** do its normal job. Holding SUSTAIN to transpose will not toggle the pedal.

What the lights mean

Each button has a lit ring, and between them they tell you the state of the box without you needing to read the screen — which matters while it is booting, when it is across the room, and when the screen is switched off for a stage.

Lights	Means
Both rings breathing slowly	Starting up. Give it half a minute.

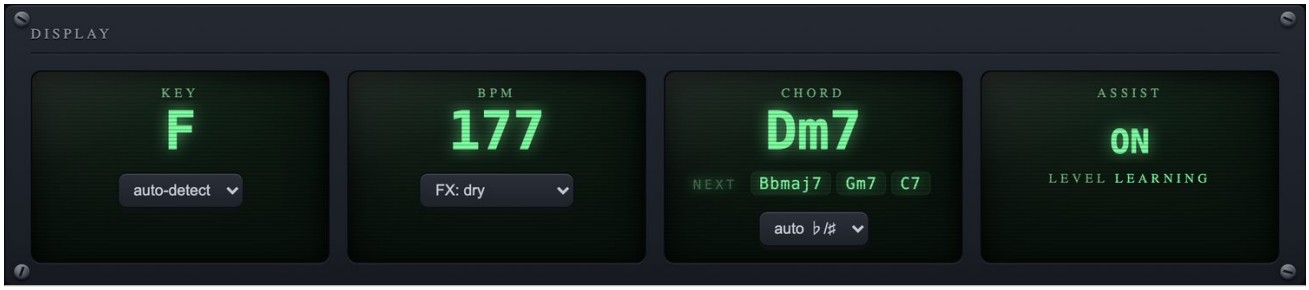
Green pulsing	Listening — working out what key you are in
Green solid	Correcting
Amber solid	Automatic pedal on
Both solid	Correcting, and pedalling for you
Both dark	Assist and the automatic pedal are both off
Both blinking together, about twice a second	No keyboard found. Check the cable is in KEYBOARD, not POWER.
Rings alternating	Installing an update. Do not unplug it.
Both blinking fast	Something is wrong. Power-cycle; if it persists, hold both buttons while powering on for recovery (§13).
Both breathing, then dark	Shutting down. Safe to unplug.

The green ring always refers to **correction**, the amber ring always to **sustain** — the same two things the buttons under them control. When they blink together they are talking about the box as a whole, not about either function.

The screen

Nine modes, changed from the dashboard's Sound tab or by cycling on the box:

Mode	Shows
status	Key, tempo, chord, assist state — the default
chords	The chord you are playing, large, with what's coming
stats	Notes played, how many were corrected, session length
bigtempo	Just the BPM, readable across a room
streak	Your practice streak and today's minutes
custom	Any text you set — your name, a set title
attract	A slow demo loop for a shop counter or a stand
about	Unit number, software version, signature status
off	Dark, for a stage



The box's own display in status mode — key, tempo, chord and assist state, readable from the keyboard.

Brightness is adjustable 0–100. **Flip** rotates the display 180° for mounting the box upside down under a keyboard. A **screensaver** dims after a set number of minutes (default 15).

3. Note correction

The thing the box is for.

How it works

Every note you play is scored in under 10 milliseconds against three independent judgements: what note is likely to come next given the last few (a sequence model), whether the note belongs to the chord currently sounding, and whether it belongs to the key you are in. A note that scores badly is moved to the nearest note that fits, and that is what you hear.

It gets out of your way as you improve

The box continuously estimates how well you are playing from your own recent notes, and puts you in one of three tiers:

Tier	What changes
Learning	Corrects readily, searches widely for a better note
Casual	Corrects less, searches narrower
Steady	Barely intervenes — roughly 3% of notes touched in testing

You never set this and there is no setting for it. It moves on its own as your accuracy rises, and it takes eight consecutive notes agreeing before it switches, so it does not flicker at a boundary.

What it deliberately leaves alone

- **Grace notes and passing tones** — a note played quickly and softly after another is treated as intentional
- **Blue notes** — over a dominant-seventh chord, the flat third and flat seventh are left alone for higher tiers
- **Repeated notes** — a key struck again during a phrase keeps its previous mapping, so trills and tremolos do not wobble
- **Confidently struck notes** — velocity raises the bar for correction, because a note you hit hard is more likely one you meant

Controls

- **Correction strength** — how eager it is overall
- **Key lock** — if a song stays in one key, lock it and stop the box from re-deciding
- **Transpose** — ±12 semitones, moves any song into your range

- **Bad-key repair** — if one key on your keyboard is dead or mis-triggering, tell the box and it compensates

During lessons it is switched off

Every graded exercise — all 83 lessons, the chord trainer, every scored drill — runs with correction **fully disabled**. Your scores are unassisted and yours. This is not a setting you can get wrong.

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4. The automatic pedal

Most beginners have no sustain pedal, and most cheap keyboards have nowhere to plug one in. The box works one for you: it holds notes past when you release the keys and lets them go when the harmony changes or when you lift your hands — which is what a pianist's foot actually does.

- **Ring time** sets how long notes hang on
- Plugging in a **real pedal** overrides the automatic one instantly; your foot always wins
- Any pedal polarity works — the box learns which way yours rests at power-on

5. Sounds

Browsing

- **By family** — the eleven groups below
- **Favourites** — star the ones you keep coming back to
- **Recents** — the last five, always one tap away
- **Audition** — hear a sound before you commit to it
- **[and]** step through sounds without looking down

The full patch list

135 sounds in 12 groups. Bold marks the 25 voices that are original FM synthesis generated live inside the box; the rest are a General MIDI set.

Pianos (4) Grand piano · Bright piano · Electric grand · Honky-tonk piano

Keys (4) Electric piano · Chorused e-piano · Harpsichord · Clavinet

Mallets & bells (16) Celesta · Glockenspiel · Music box · Vibraphone · Marimba · Xylophone · Tubular bells · Kalimba · Steel drums · Dulcimer · Tinkle bell · Agogo · Woodblock · Taiko drum · Melodic tom · Synth drum

Organs (8) Drawbar organ · Percussive organ · Rock organ · Church organ · Accordion · Reed organ · Harmonica · Tango accordion

Guitar & bass (16) Nylon guitar · Steel guitar · Jazz guitar · Acoustic bass · Fingered bass · Fretless bass · Clean electric guitar · Muted guitar · Overdriven guitar · Distortion guitar · Guitar harmonics · Pick bass · Slap bass · Slap bass 2 · Synth bass · Synth bass 2

Strings & voice (15) Violin · Cello · Harp · Strings · Slow strings · Choir aahs · Voice oohs · Viola · Contrabass · Tremolo strings · Pizzicato strings · Timpani · Synth strings · Synth strings 2 · Synth voice

Winds & brass (24) Trumpet · Trombone · French horn · Brass section · Alto sax · Tenor sax · Clarinet · Flute · Pan flute · Tuba · Muted trumpet · Synth brass · Synth brass 2 · Soprano sax · Baritone sax · Oboe · English horn · Bassoon · Piccolo · Recorder · Blown bottle · Shakuhachi · Whistle · Ocarina

Synth (16) Square lead · Saw lead · New age pad · Warm pad · Calliope lead · Chiff lead · Charang lead · Voice lead · Fifths lead · Bass + lead · Polysynth pad · Choir pad · Bowed pad · Metallic pad · Halo pad · Sweep pad

Rise Keys originals (14 - all original) **FM e-piano** · **Glass EP** · **FM bass** · **FM brass** · **FM marimba** · **Vibes** · **FM tubular bells** · **Clav** · **Calliope flute** · **Harp pluck** · **FM celesta** · **Pipe organ** · **FM music box** · **Saw pad**

Beats & 808s (4 - all original) **808 kick** · **808 sub bass** · **808 cowbell** · **Metal hat**

Synth lab (7 - all original) **Hyper saw** · **Velvet pad** · **Synth pluck** · **Dream bell** · **Velvet Reed EP** · **Percussion organ** · **Octave strings**

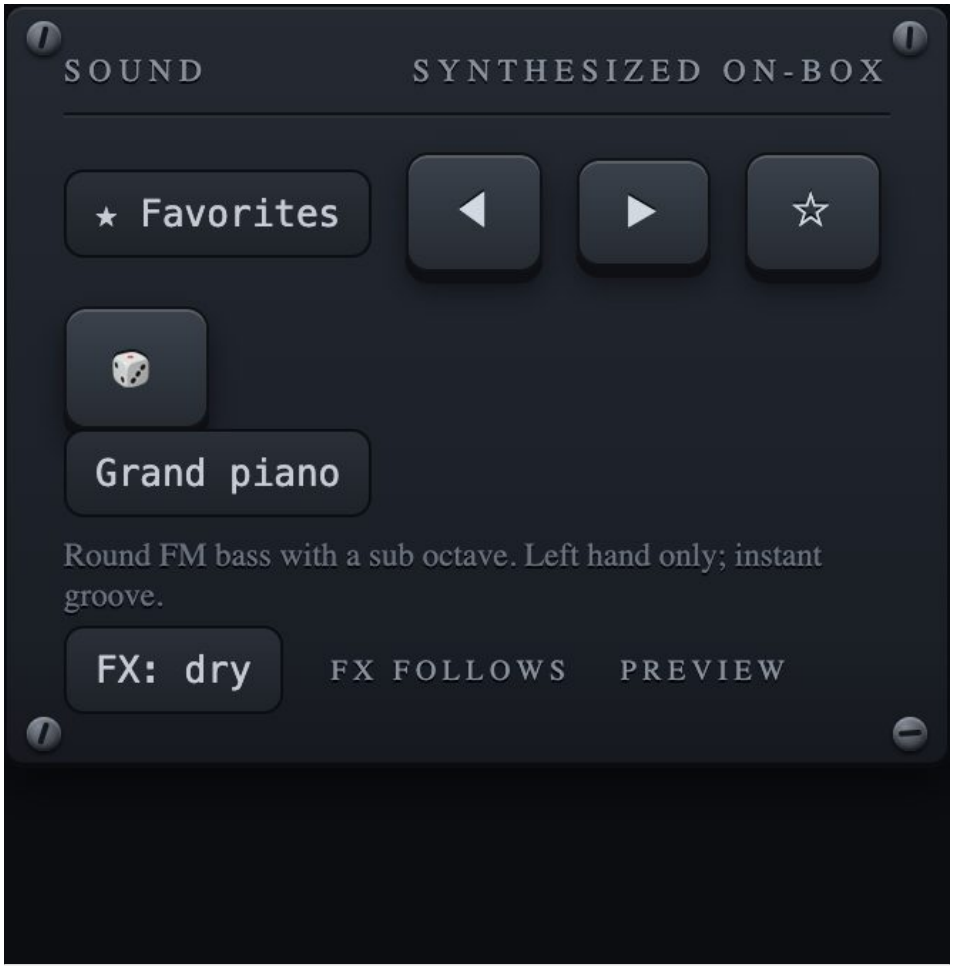
Around the world (7) Sitar · Banjo · Shamisen · Koto · Bagpipe · Fiddle · Shanai

Shaping a sound

Four controls, live while you play. They apply to the original FM voices and, more subtly, to the GM set.

Control	Range	Does
Tone	0–2.0	Brightens or darkens
Drive	0–1.0	Adds grit and compression
Attack	0–1.0	How fast the note arrives
Release	0.2–3.0	How long it takes to leave

Volume is 0–100 and is remembered between sessions along with the sound, the effect, the voicing, your favourites and your recents.



The sound module on the dashboard: favourites, previous and next, a random pick, the current sound with a note on what it is for, and the effect it is running.

Effects

Nine spaces, selectable per sound. Auto-FX picks one to suit the instrument and you can override it at any time.

- dry
- small room
- studio
- concert hall
- cathedral
- plate
- slapback
- tape delay
- ambient

What each one is for:

Effect	Sounds like	Reach for it when
dry	No space at all	You want the raw voice, or you are feeding an amp or DAW that has its own reverb
small room	A tight, close space	Rhodes, clavinet, anything funky — keeps the attack sharp
studio	A controlled room with a touch of delay	The safe default for most sounds
concert hall	A large, slow space	Grand piano, strings, anything you want to sound big
cathedral	Enormous, long tail	Church organ, bells, pads. Overwhelming on fast playing
plate	Bright, dense, vintage	Electric pianos and vocals-style leads; the classic studio sheen
slapback	One quick repeat	Rockabilly piano, honky-tonk, anything that wants a bounce
tape delay	Repeats that darken as they fade	Leads, pads, arpeggios — it builds a rhythm out of held notes
ambient	Wide, long, washed	Pads and film-score playing; the one for slow, sparse chords

Auto-FX matches these to the instrument automatically — a bell gets cathedral, an organ gets small room, a pad gets ambient, an FM electric piano gets plate. Turn it off if you would rather choose yourself; your choice is remembered per session.

6. Sound out of the box

Where the sound comes from

All of it comes from the RK-1, not from your keyboard. Your keyboard sends key presses; the box decides what they should be and makes the sound. That is why silencing your keyboard's own voices (§1) matters so much.

Four ways to hear it, and you can change between them at any time:

Route	Use it when
The built-in speaker	Practising at a desk. Nothing else to plug in.
Headphones, into PHONES	Late nights. The speaker mutes itself automatically.
Line out, into an amp, powered speakers, a PA or an interface	Playing loud, gigging, or recording audio
MIDI OUT, into a hardware synth or sound module	You want a different instrument to make the sound

The speaker

Built in. Plug in a keyboard and you hear music with nothing else connected. Set it to **auto** (mutes when headphones are inserted), **on**, or **off**.

Headphones

Insert a plug and the speaker mutes itself. Nothing to switch.

Louder than the built-in speaker

The headphone output doubles as a line out. A 3.5 mm to twin-jack or 3.5 mm to RCA lead runs it into a keyboard amp, a pair of powered monitors, a PA channel or an audio interface. Set the box's volume to about three-quarters and do the rest of the adjusting at the amp: that gives you the cleanest signal.

If you go this route, set the speaker to **off** rather than auto, or you will hear the box and the amp slightly out of step with each other.

What about playing the sound through my phone or tablet?

The dashboard does not carry audio, and that is deliberate. The page you open at rk1.local shows you everything — the piano roll, lessons, the visualizer — but the sound stays in the box. Streaming audio over Wi-Fi to a browser would add somewhere between 100 and 300 milliseconds of delay, which would undo the entire point of a box that corrects notes in under ten.

So: your phone is the screen, the RK-1 is the instrument. If you want the sound somewhere else, take it out of the headphone socket with a cable, which stays instant.

The one exception runs the other way — see **audio in** below, which brings your phone's sound into the box.

Audio in — play along

Plug a phone or laptop into **AUDIO IN** and its sound comes out of the same speaker, mixed with your playing. Turn on **play-along** and the box ducks its own volume so the track sits on top; switch it off and your volume returns exactly where it was.

MIDI out

The **corrected** stream, live, out of the 5-pin socket into a hardware synth or an interface. What you hear is what leaves.

7. Learning

Lessons

Notes fall toward a hit line. Two modes:

- **Learn** — waits for you to find each note. No time pressure.
- **Perform** — counts you in and grades your timing.

Stars, streaks and a best score per lesson. Miss the same note repeatedly and the results screen tells you which one.

No keyboard handy? An on-screen keyboard plays the box, so you can try a lesson from your phone.

Every lesson

83 lessons in 12 genres. Each opens with a short note on where the music comes from. Correction is disabled in all of them, so every score is unassisted.

Start here (8) Hot Cross Buns · Mary Had a Little Lamb · Frere Jacques · London Bridge · Old MacDonald · Row Your Boat · Happy Birthday · Jingle Bells (chorus)

Songs (15) Ode to Joy (Beethoven) · Amazing Grace · When the Saints Go Marching In · Oh! Susanna · Auld Lang Syne · Silent Night · Greensleeves · House of the Rising Sun (arpeggios) · Yankee Doodle · America (My Country, 'Tis of Thee) · This Old Man · Camptown Races · Joy to the World · Clementine · God Rest Ye Merry, Gentlemen (verse)

Blues & boogie (4) Blues shuffle riff · Blues turnaround · Blues call & response · Walking blues bass

Gospel (4) Amen cadence · Gospel walk-up · Gospel 6/8 sway · Grace notes & slides

Jazz & swing (4) Swing eighths · The ii-V-I (jazz's favorite move) · Jazz walking bass · Blue notes

Latin rhythms (3) Habanera bass · Tresillo (3+3+2) · Montuno vamp

Rock & pop (3) Rock ballad arpeggios · Pop anthem pulse · Driving rock bass

Around the world (4) Jasmine Flower (Mo Li Hua, opening) · Sakura Sakura · Chinese pentatonic study (gong mode) · Hirajoshi study (Japanese scale)

Classical corner (5) The Entertainer (Joplin, opening) · Brahms' Lullaby (opening) · Fur Elise (Beethoven) · Minuet in G (Petzold) · Canon in D (Pachelbel)

Scales & keys (13) C major scale · G major scale · D major scale · A major scale · E major scale · F major scale · Bb major scale · A minor scale · D minor scale · E minor scale · C pentatonic scale · C blues scale · Chromatic run

Chords & patterns (15) Block chords: C F G C · Pop progression: Am F C G · Doo-wop progression: C Am F G · Andalusian: Am G F E · Canon progression (in C) · 12-bar blues in C · Boogie bass line · Waltz

pattern · Alberti bass · C arpeggio · F arpeggio · G arpeggio · Am arpeggio · Dm arpeggio · Em arpeggio

Finger drills (5) Finger drill 1 (Hanon) · Finger drill 2 (Hanon-style) · Finger drill 3 (Hanon-style) · Finger drill 4 (Hanon-style) · Finger drill 5 (Hanon-style)

Your own songs

Drop a MIDI file on the dashboard and it becomes a falling-note lesson with stars, filed under **My songs**. You can also turn anything you just played into a lesson from the recording.

Chord trainer

An eight-level curriculum, from three major chords to a timed lightning round.

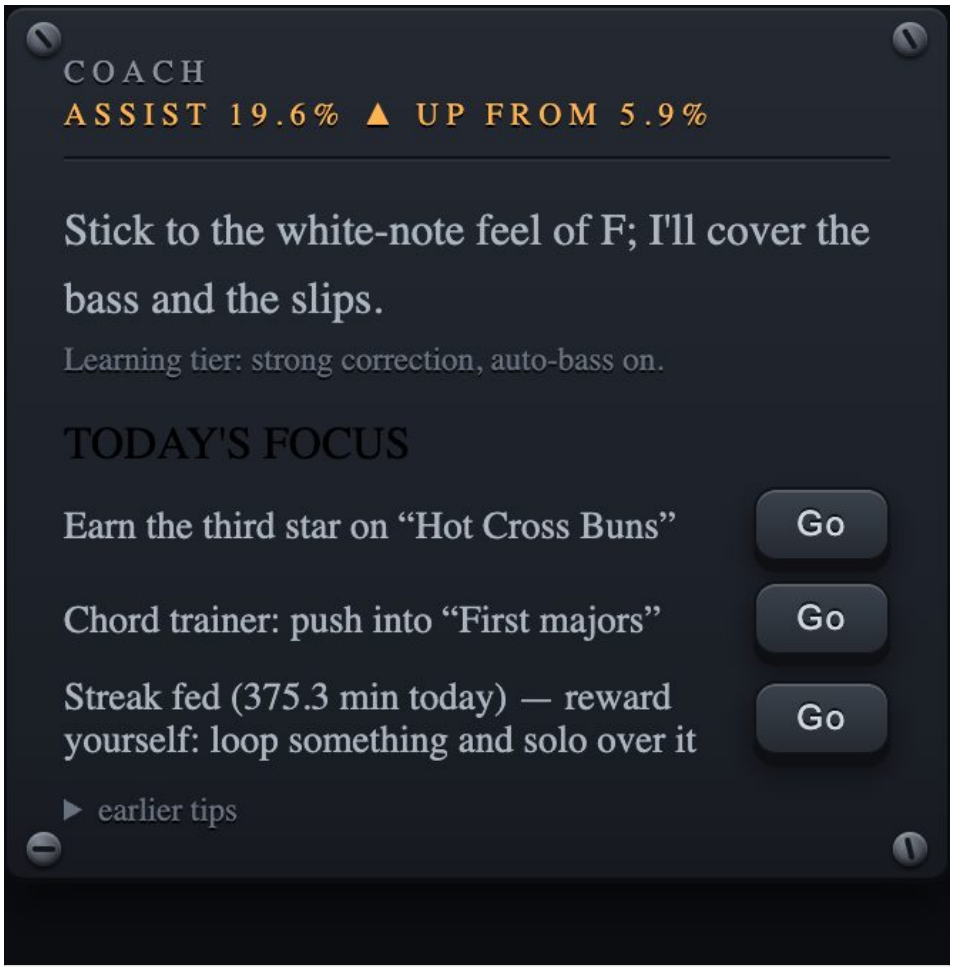
Levels, in order:

1. First majors
2. All the majors
3. The minors
4. Major or minor?
5. Sevenths
6. Color chords
7. Inversions
8. Lightning

- A keyboard on screen shows the shape
- **Ear mode** plays the chord instead of naming it
- **Inversions** are graded on the real bass note
- Chords you get wrong come round more often
- Your level and best streak are remembered

Coach

Reads how you actually played and builds a short daily plan: which lesson is next, which keys are giving you trouble, which trainer level to attempt. Every suggestion is a button that takes you straight there.



The coach, built from how you actually played rather than a fixed syllabus.

8. Playing

Looper

Record a phrase and stack layers on top.

- Recording starts at your **first note**, not when you press record, so there is no silent gap at the top of the loop
- The loop length **snaps to the beat** when the metronome is running
- Layers are tagged separately: **mute** any one, **undo** the last, **redo** it back
- Play the whole loop **backwards**, or at **half or double speed** — it is MIDI, so the pitch stays true at any speed
- A position ring shows where you are in the cycle
- **Export** the loop as a standard .mid
- **Clear** wipes it and starts again

Key	Does
L	Start / stop recording a layer
U	Undo the last layer

Arpeggiator

Hold a chord and the box plays it out in time, locked to the metronome tempo.

Setting	Options
Pattern	up · down · up-down · random
Rate	eighths · eighth triplets · sixteenths
Octaves	1–3 — how far up the pattern climbs before repeating

While the arpeggiator is running it replaces your held notes rather than doubling them, so the texture stays clean, and what it plays is what feeds the looper and the MIDI OUT socket. It steps aside automatically during lessons and the chord trainer, so it can never interfere with a graded exercise.

Metronome

More than a click:

Setting	Range
Tempo	40–240 BPM, or tap it in
Subdivision	quarters · eighths · triplets · sixteenths
Time signature	2, 3, 4, 5, 6, 7 beats to the bar
Swing	0–100%, straight through to hard shuffle
Gap trainer	play N bars, mute N bars
Speed trainer	+N BPM every N bars
Count-in	one bar before recording starts

The **gap trainer** is the one worth knowing about. It plays for a few bars, then goes silent for a few while you keep playing, and comes back in. If you have drifted, you hear it the moment the click returns. It is the fastest way to find out whether your time is actually yours or the metronome's.

The **speed trainer** creeps the tempo up every few bars, so a passage you can play at 80 becomes one you can play at 110 without ever deciding to try.

Setlists

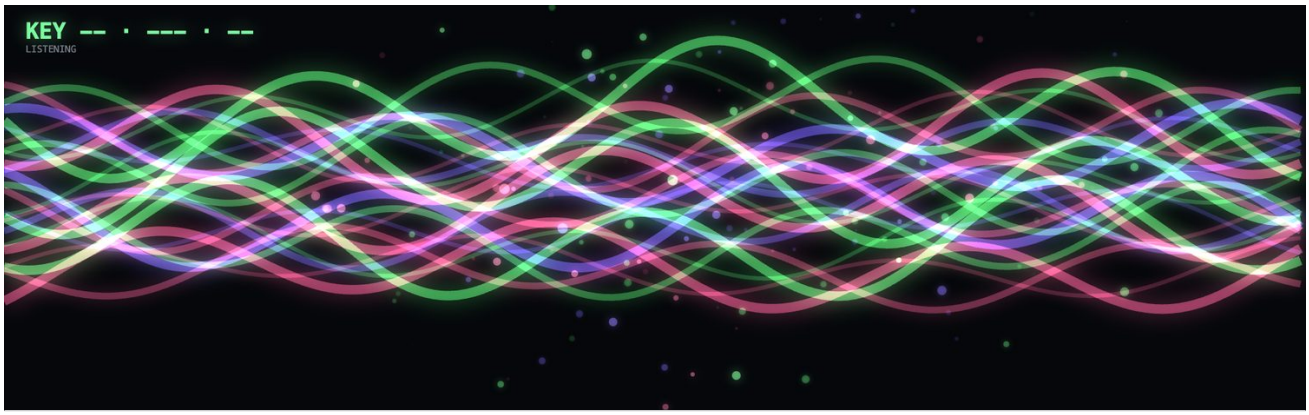
Save every setting — sound, effects, tempo, key lock, transpose — as a named song, and recall it instantly. **,** and **.** step backwards and forwards through the set, so a gig is two keys.

Stage visualizer

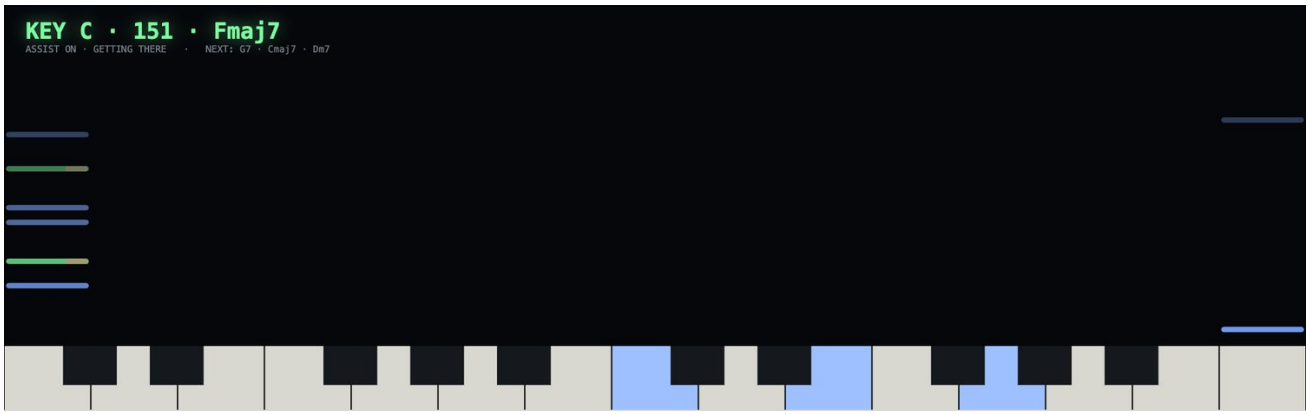
Six full-screen scenes that react to what you play:

Scene	Looks like
trails	Notes as falling ribbons of light — the classic
nebula	Bursts of particles that drift and fade
ribbons	Flowing bands that bend with your phrasing
spectrum	Bars that rise per pitch class, decaying
kaleido	Mirrored, symmetrical, hypnotic
fireworks	Every note a shell, velocity sets the size

Set one, or pick **cycle** and let it rotate.



Ribbons, one of the six stage scenes, bending with the phrasing.



Trails — notes as falling ribbons of light.

- **V** cycles scenes, **C** hides the readouts, **F** goes full screen
- **Camera mode** hides everything but the visuals and a small brand mark — for filming

9. What you played

Reading the piano roll

The dashboard scrolls every note as it happens. The colours are the whole story of what the box did for you:

Colour	Means
Blue	You played it and it was already right — untouched
Green	The box moved this note. This is what you heard
Red ghost	Where your finger actually landed, under the green
Amber	The automatic bass line, which you did not play
Grey	Held by the automatic pedal after you let the key go

A screen with almost no green on it means you no longer need much help — which is the point of the whole product. Watching green turn to blue over weeks is the most direct measure of improvement the box offers.

The piano roll. Blue is what you played, green is a note the box moved, the red ghost beneath shows where your finger actually landed, and amber is the automatic bass.

Takes

Every session is recorded automatically as a standard MIDI file on the box. Rename them, delete them, download them, open them anywhere. Nothing is uploaded.

Time machine

The box remembers **the last 30 minutes** of everything you played.

- A timeline shows where the busy stretches were, and where notes got corrected — taller bars are denser playing, marked bars are fixes
- **Scrub back** to any moment and watch it again
- **Play from here** replays it through the box
- **Hear the original** replays it without correction, so you can hear exactly what was and was not changed
- **Keep this moment** saves that stretch before it scrolls away

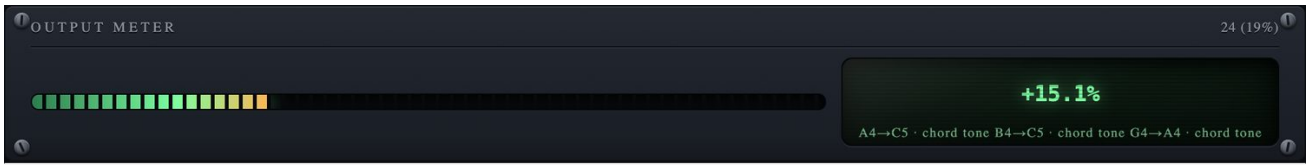
That last one is the point. The best thing you play is usually the thing you were not recording.

Chord transcript

While you play, the box writes down the chords. Export as a **PDF** chord sheet, a **MIDI** file of the progression, or plain text.

Progress

- **Streaks** and a daily practice goal
- An **assist meter** that falls as your hands take over — the box's goal is to be needed less, and this is the proof



The assist meter. The line falling week by week is your hands taking over from the box.

- A printable **report card** with a student name on it
- Export everything as CSV or JSON

10. Teacher mode

Tap it and a QR code appears on screen. Every phone in the room scans it and watches your playing live — falling notes, chords, key, tempo. A whole class follows one keyboard.

- It runs on **your own Wi-Fi**. Nothing is uploaded or recorded.
- Watchers are **view-only** — they cannot change your settings.
- Turning it on locks the controls to your device, so a room full of students cannot fight over the volume.
- Turn it off from the box at any time.

11. Backup and moving to another box

One button exports **everything you have ever played** — every practice session, saved take, lesson score, imported lesson, setlist and sound preference — as a single file.

Load that file on any other RK-1 and your history is there: your streak, your assist curve, your recordings, your lessons.

Useful when a unit is replaced, when a teacher hands a box to a student, or when you simply own two.

- The **unit number does not travel**. It is cryptographically signed to its own box's processor, so each RK-1 keeps its own identity.
- Restoring **sets your current state aside first**, so a restore can never be the thing that loses your history.
- Takes already on the box are kept, not overwritten.

12. Connecting to a computer

Optional. The box does not need one.

Network MIDI

macOS — Audio MIDI Setup -> Window -> Show MIDI Studio -> Network. Create a session, click Connect when the RK-1 appears. "Rise Keys Out" then behaves like any MIDI input.

Windows — install Tobias Erichsen's free rtpMIDI driver and connect to the box's session.

Then arm a MIDI track in any DAW — Logic, Ableton, FL Studio, Reaper, Cubase, Studio One. The stream is plain standard MIDI: no plugin, no driver from us, nothing to install from Rise Keys. The wrong notes were already fixed before they arrived.

No DAW at all

Every session is on the box as a .mid you can download whenever you want it.

Bluetooth MIDI

The radio is in the box and the pairing screen is in the dashboard. Put your keyboard in pairing mode, scan, pair. Bluetooth adds roughly 10–20 ms, so a cable is always the tightest way to play.

13. Updates, recovery and settings

Updates

The box checks once a day for a new version. No identifiers are sent and there is one switch to turn it off.

- **Nothing installs itself.** The box tells you what changed and waits for you to say yes.
- Every update keeps a copy of the version it replaced.
- **Roll back** to the previous version with one button.
- Updates are free, forever.

Updating after a long time away

A box that has been in a cupboard for a year is not behind in the sense of having to catch up. **Every update is the whole software, not a patch on top of the last one**, so going from your first version straight to the newest is one download and one restart — exactly the same operation as updating from last month's version. There is no chain to walk and no way to be stranded because you missed the versions in between.

Press **Check for updates**, say yes, and the box restarts on the newest software. Once.

Recovery

- Hold **both buttons while powering on** — the box restores itself, from its local backup or by downloading the known-good version.
- **Three failed boots in a row** trigger the same rescue automatically.
- The lights tell you it is working: both buttons pulse slowly through recovery, then the box boots normally.

Recovery puts the software back to a version known to run. It is not a factory wipe: it does not touch your sessions, lesson scores, saved takes, imported lessons, setlists or sound preferences. When the box comes back up, check for updates and it will go straight to the newest version again — your history is still there, and so are your settings.

So the full round trip is safe: old version -> recovery -> newest version, with nothing of yours lost at any point.

Why an update cannot lose your playing

Two separate things live on the box: the software, and everything you have played. An update is only ever allowed to write to the software — the program files, the model, the installer scripts. Your history sits outside that boundary and the updater will refuse a package that tries to reach it.

- Your practice history is written one line at a time and read one field at a time. A session recorded on the very first version still reads on the newest one; it simply has no value for the columns that did not exist yet.
- The version being replaced is kept on the box, and a copy of your history is taken alongside it before anything is installed.
- **Roll back** puts the previous version back with one button.

If you want a copy in your own hands as well — before an update, or just on principle — **Backup & move** in the dashboard exports everything as a single file you can keep anywhere, and restore onto this box or any other RK-1 (§16, "move everything to a new box").

Other settings

- **Keyboard size** (25–88 keys) so every on-screen keyboard matches yours
- **Velocity curve** — how hard you have to hit for a loud note
- **Notation** — sharps or flats
- **Restore defaults** — settings back to factory, your history untouched

Your unit

Numbered units carry a signed certificate the box verifies itself. The **about** screen shows the unit number and whether the signature is genuine — it is bound to that specific box's processor and cannot be copied onto another.

14. Privacy

- No account, no login, no cloud, no microphone
- Your playing never leaves the box
- The only thing that ever goes out is the once-a-day update check, which sends no identifiers and can be switched off
- Unplug the internet and everything except that check still works

15. Every setting

Every control the box exposes, with its range. All of them persist across a power cycle unless noted.

Correction

Setting	Range	Default
Correction strength	0–2.0	1.0
Key lock	off, or any of the 12 keys	off
Transpose	-12 to +12 semitones	0
Automatic bass	on / off	on
Timing help	on / off	on
Notation	sharps / flats	sharps
Velocity curve	soft / normal / hard	normal
Keyboard size	25, 37, 49, 61, 76, 88 keys	61

Sound

Setting	Range	Default
Sound	any of the 73	Grand piano
Effect	any of the 9	auto
Auto-FX	on / off	on
Volume	0–100	70
Tone / Drive / Attack / Release	see §5	neutral

Sustain

Setting	Range	Default
Automatic pedal	on / off	on
Ring time	0.3–4.0 s	1.5 s
Pedal polarity	auto / inverted	auto

Metronome, looper, arpeggiator

See §8 — tempo, subdivision, signature, swing, gap and speed trainers; loop quantize, speed and mute; arpeggiator pattern, rate and octaves.

Hardware

Setting	Range	Default
Speaker	auto / on / off	auto
Play-along ducking	0–100%	35%
MIDI OUT	on / off	on
Screen mode	9 modes, §2	status
Screen brightness	0–100	80
Screen text	any text	empty
Screen flip	on / off	off
Screensaver	0–60 minutes, 0 = never	15
Practice goal	5–120 minutes/day	10
Automatic update check	on / off	on
Theme	matches your case colour	Stage Black

Restore defaults returns every setting above to its default. It does not touch your history, recordings, lessons or setlists.

16. How do I…?

Short answers to the things people actually want to do.

…learn a song I already love

Find it as a MIDI file, drop it on the dashboard, and it becomes a falling-note lesson under **My songs** with stars like any built-in one. Start in **Learn** mode, which waits for you. When you can get through it, switch to **Perform** and let it grade your timing. Correction is off the whole time, so the stars are yours.

…stop it correcting me

Press **ASSIST** on the box. Off means off. If you only want less of it rather than none, turn **correction strength** down instead, or lock the key so it stops re-deciding what key you are in.

…practise one bar that keeps going wrong

Set the **metronome** slow, turn on the **speed trainer** so it creeps up every few bars, and use the **looper** to hold the chords underneath you while both hands work on the melody. When you can play it at tempo, go back to the lesson.

…find out whether I am actually improving

Open **Progress**. The assist meter is the honest one: it shows the proportion of your notes the box touched, week by week. If that line is falling, your hands are taking over. The lesson stars and the practice streak are the encouraging numbers; the assist meter is the true one.

…record something to send to someone

You do not have to do anything — every session is already recorded. Go to **Takes**, find it by time, and download the .mid. If you want audio rather than MIDI, play it back and record the box's headphone output into your phone.

…keep the good bit I just played

Time machine -> Keep this moment. The box remembers the last 30 minutes, so you can do this after the fact. This is the answer to "that was great and I wasn't recording."

…hear exactly what the box changed

In the **time machine**, play a stretch back, then press **hear the original**. Same performance, correction removed. It is the only honest way to know what you played versus what came out — and the fastest way to find the notes you should practise.

…play quietly at night

Plug headphones into **PHONES**. The speaker mutes itself. Nothing else to change.

…play along with a track

Plug your phone into **AUDIO IN** and turn on **play-along**. The box ducks its own volume so the track sits on top. Turn it off and your volume returns exactly where it was.

…use it at a gig

Build a **setlist**: save each song with its sound, effect, tempo, key lock and transpose. Then **,** and **.** step through the set and everything changes at once. Set the screen to **bigtempo** so you can read it from standing, or **off** if the stage is dark. Run the audio out into the PA and put the visualizer on a screen behind you if you want the show.

…teach a room full of students

Turn on **teacher mode**, put the QR code on the projector, and every phone in the room follows your keyboard live. Watchers cannot change your settings. Nothing leaves your Wi-Fi.

…move everything to a new box

Backup and move -> Export everything, then restore that file on the new RK-1. Every session, take, score, custom lesson, setlist and preference comes across. Only the unit number stays behind, because it is signed to the old box.

…get a chord sheet of what I just improvised

The **chord transcript** has been writing it down the whole time. Export it as a **PDF** chord sheet, a **MIDI** file of the progression, or plain text.

…make the keyboard I own feel like a better instrument

That is the whole product, but concretely: turn on the automatic pedal if your keyboard has no pedal jack, pick a sound with some space in it, and set the velocity curve to match how hard you actually play. Those three take a minute and change more than anything else in this manual.

17. Glossary

Written for people who did not grow up around this vocabulary.

Term	What it means here
MIDI	Not sound — a stream of messages saying which key went down, how hard, and when. The RK-1 reads these, corrects them, and makes the sound itself.
USB TO HOST	The socket on a keyboard that sends MIDI to a computer, and now to the RK-1. Not the same as a power socket.
5-pin DIN	The round MIDI socket that has been on instruments since 1983. OUT on your keyboard goes to IN on the box.
Velocity	How hard you struck the key, 1–127. The box uses it for loudness, and as a hint about whether you meant a note.
Program / patch	One instrument sound. "Program 0" is the grand piano in General MIDI.
General MIDI (GM)	A standard list of 128 instrument sounds in a fixed order, so a file written anywhere plays back with roughly the right instruments.
Soundfont	A file of recorded instrument samples that a synth plays back. The box's GM half is the freely licensed FluidR3 soundfont.
FM synthesis	Making sound by having one oscillator modulate another, rather than replaying a recording. The 25 Rise Keys voices are generated this way, live.
Polyphony	How many notes can sound at once.
Sustain	Letting notes ring after the key is released — what a piano's right pedal does, and what the box does for you.
Quantize	Nudging notes onto the beat. The looper does this to loop length, not to your notes.
Latency	The delay between pressing a key and hearing it. Under 10 ms feels instant; Bluetooth adds 10–20 ms on top.
Key	The set of notes a piece mostly lives in. The box works yours out from what you play, and you can lock it.
Transpose	Shifting everything up or down so a song sits where you can sing or reach it, without relearning it.
Arpeggio	The notes of a chord played one after another instead of together.
Inversion	The same chord with a different note at the bottom.
DAW	Digital Audio Workstation — Logic, Ableton, FL Studio and so on. Optional here; the box needs no computer.

18. Care, power and safety

Power

- Use the supplied **UL-listed USB-C adapter**. A phone charger of 5 V and at least 2.5 A also works. An underpowered supply is the single most common cause of odd behaviour in any small computer: random reboots, a display that never appears, USB that drops out.
- There is no power switch. Unplug it to turn it off.
- **Do not pull the power mid-write.** If the screen shows activity, give it a couple of seconds. Sessions are written when they end.

Looking after it

- Wipe the case with a dry or barely damp cloth. No solvents — they will haze the printed enclosure.
- Keep liquids away from it, as with any electronics. There is no drain and no conformal coating.
- Normal room temperatures only. Do not leave it in a parked car in summer: the enclosure is PETG and will soften and distort long before the electronics complain.
- The case is 3D printed, so it is tougher than it looks but not indestructible. It will survive a gig bag. It will not survive being stood on.

Moving it around

Nothing inside is fragile — no disc, no fan, no moving parts. Coil the cables loosely rather than tightly around the box; the strain relief on a cheap USB cable is usually the first thing to fail in any rig.

Safety

- Indoor, dry use only.
- Do not open the enclosure. There is nothing serviceable inside, and opening it voids the warranty.
- If the adapter, a cable or the case is damaged, stop using it and contact us.
- This is a musical instrument accessory, not a medical or safety device.

Hearing. Headphones can go loud enough to damage your hearing, especially on bright sounds and long sessions. Start low, and if you practise for hours, take the headphones off periodically. This is the one part of the box that can hurt you.

19. Keyboard shortcuts

Anywhere in the dashboard:

Key	Does
A	Assist on/off
S	Automatic sustain on/off
P	Panic — stop all sound
M	Mute
L	Looper record
U	Looper undo
[ ]	Previous / next sound
V	Next visualizer scene
C	Clean mode — hide the readouts
F	Full screen
, .	Previous / next song in the setlist
1 2 3	Play / Learn / Studio tabs
?	Start the guided tour

20. If something is wrong

Nothing lights up at all. The power supply, almost always. Use the one in the box or another that can supply 5 V at 2.5 A or more — a weak charger is the most common cause of odd behaviour in any small computer. Try a different USB-C cable too; charging cables sometimes carry power poorly.

The rings breathe but the screen stays dark for a long time. Give it a full minute on the first boot after an update, when the box has housekeeping to do. If the screen never arrives but the rings settle into a steady state, the box is running fine and the display ribbon may be loose — email us.

No sound at all. Check the volume on the box first, then whether headphones are inserted (that mutes the speaker). Confirm the sound you have selected is not one you can barely hear at low velocity.

The box does not see my keyboard. Check the cable is in the **KEYBOARD** port, not POWER. If your keyboard has a "Local Control" setting, that does not affect MIDI out. For 5-pin, make sure you went from the keyboard's **OUT** to the box's **IN**.

Notes sound but nothing is corrected. The ASSIST light is amber until the box works out your key — play a few chords. If it is off, press it. If you are in a lesson or the chord trainer, correction is disabled on purpose.

It corrected something I meant to play. Turn the correction strength down, or lock the key if the song is staying in one. As your accuracy rises the box will step back on its own.

The dashboard will not load. Try http://rk1.local. The box's screen shows its address if that name does not resolve on your network. Everything except the dashboard works with no Wi-Fi.

A take is missing. Sessions are saved when they end. The time machine holds the last 30 minutes regardless — check there and use **Keep this moment**.

An update went wrong, or the box will not start. Hold both buttons while powering on. The box restores software that is known to run. Your sessions, scores, takes and settings are not touched, and once it is up you can update straight to the newest version again (§13).

Still stuck: **hello@risekeys.com**. A human answers.

21. Specifications

Correction latency	**Under 10 ms, key to corrected sound**
Sounds	73 instruments, 25 original FM voices, 9 effects
Lessons	83, across 12 genres
Chord trainer	8 levels
Time machine	30 minutes
Connections	USB-A (keyboard, powered host), 5-pin MIDI IN and OUT, 3.5 mm headphones, 3.5 mm audio in, 6.35 mm sustain, USB-C power
Speaker	Built in, auto-mutes on headphone insert
Network	Wi-Fi, dashboard in any browser; Bluetooth MIDI
Power	5 V USB-C, supply included
Recording	Standard MIDI files, downloadable
Account required	None
Subscription	None

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