

CONSTELLATION

Star charts for fretboards

How to use Constellation

Constellation charts scales and modes across a guitar or bass neck in any tuning. Every open string is stored as a real pitch, so retune a string and the whole chart recalculates. Pick the key of the song, pick a scale, and the neck shows you where it lives; from there the app helps you explore the modes around it, name the chords in it, find a scale from notes you already have, and write a riff from it.

Quick start — the page in six steps

The page reads top to bottom in this order, and the strip under the header links to each step.

- 1 Instrument & tuning**
Choose the instrument, then a tuning preset or tune each string. The chart follows.

- 2 Key of the song**
Tell Constellation the key and it lists the scales that fit, closest to home first, each with its character.

- 3 Scale & chart**
Pick a root and a scale. Click notes to color them, narrow the fret range, choose which strings to show, and read the neck.

- 4 Harmony**
The other modes of the scale, the scales one note away, and the chord built on every degree. Click any to chart it.

- 5 Scale finder (Sightings)**
Tap the notes you are playing and see every scale that holds them.

- 6 Riff Map**
Generate a playable note path from the chart. Lock steps you like and regenerate the rest.

The chart

The neck is drawn with the high string at the top, the way tab reads, and the open string in its own bay before the nut. Each row shows the string number, its open note and an approximate gauge; wound strings are drawn thicker with a winding texture, so a drop-tuned low string looks like one.

What you see on the neck

Gilt note with a halo	The root of the scale.
Cream note	A scale note.
Colored note	A note you clicked in Scale notes; every copy of it on the neck takes the same color.
Dashed gold line	A trace line, joining neighbouring scale notes along a string so the shape reads at a glance.
Dimmed columns	Frets outside the fret range you set.
Dimmed, unstrung row	A string you switched off.

Controls around the chart

Scale notes · click to color	Click a note to color it everywhere it appears; click again to clear it. Clear colors removes them all.
Show only colored notes	Hides the rest of the scale so just your colored notes remain on the neck. Switch back with Show whole scale.
Trace lines: on / off	Draws or hides the lines between neighbouring scale notes on each string.
Copy notes	Copies the scale as text, e.g. "E Phrygian Dominant: E F G# A B C D (R b2 3 4 5 b6 b7)".
Fret range	Show scale notes only between two frets; Whole neck resets it.
Frets shown	Draw 12, 15 or 24 frets. 12 fits a laptop without side-scroll.
Left-handed	Mirrors the neck: nut on the right.
Sound / Play ▲ ▼	With sound on, click any note to hear its exact pitch. Play ▲ plays the scale up one octave from its lowest root in view; Play ▼ plays it down.
Strings on the chart	One toggle per string. A string switched off keeps its row, dimmed, and carries no notes; it drops out of trace lines, Play, the Riff Map and the PDF. At least one string always stays on.

Instrument & tuning

Instruments are grouped: Guitars (8, 7, 6), Basses (6, 5, 4), Ukulele, Banjos (5- and 4-string). Each carries its own tuning presets (Drop D, DADGAD, Drop A on the 7, Drop E on the 8, Tenor and Irish tenor on the banjo...). The preset menu reads “Custom tuning” whenever your strings match none of them.

Tuning controls

Tuning preset	Named tunings that fit the selected instrument.
Standard tuning	Puts every string back to the instrument's standard.
Every string down $\frac{1}{2}$ step / a whole step	Lowers the whole neck one or two semitones, keeping the tuning's shape (E standard becomes E $\flat$ or D standard).
Tune each string	– and + move one string by one semitone. Low string on the left, high string on the right.
Short strings	The 5-string banjo's 5th string starts at fret 5. Its open note is the drone at the peg, frets 1–4 are hatched out, and its pitch counts from the peg.

Harmony

Everything in the Harmony panel starts from the scale that is charted.

Other modes of this scale	The seven modes of the family. Parallel · same root keeps the root and changes the mode (D Dorian → D Aeolian). Relative · same notes keeps the notes and changes the root (D Dorian → C Ionian).
Scales one note away	Every scale of the same size, on the same root, that differs by exactly one note, showing which interval moves. Click to switch.
Chord tones	Pick a degree, then Triad, 7th chord or Root + 5th: the chord built on that degree lights up and is named (Dm7, G7, Em7♭5, C°7...). Changing the degree re-applies the last chord type so you can walk through the harmony.
Every chord in this scale	One button per degree with its name and Roman numeral (lower case for minor and diminished). Show 7ths switches the row to seventh chords.

Playing in, Sightings and the Riff Map

Playing in · scale picker	Pick the song's key (root and major/minor, or Use the charted scale). Scales that fit are grouped: Home (every note is in the key), Works over the key (same home chord, a note or two changed for color), Spice (a different 3rd or an exotic set, for one chord at a time). Each shows its character and the notes it adds.
Character	Every scale has a mood and a one-line description: Aeolian is somber, Dorian mellow, Phrygian dominant eastern, Lydian floaty... Hover any scale in the Scale menu or in the picker to read it.
Sightings · scale finder	Tap the notes you are playing (or Use selected notes). Every scale at every root that holds them is listed, exact matches first. Root must be one of these narrows the list. Click a result to chart it with your notes colored.
Riff Map	Generate writes a note path from the scale, the fret range and your colored notes as anchors. Styles: Run (scalar, one direction with a turn), Motif (a cell repeated and varied), Pedal (bouncing off a pedal tone), Zigzag (wide leaps), Chug (low pedal, accents on anchors). 4, 8 or 16 notes. No rhythm: the map is the path. Click a step to lock it; Generate regrows the rest. Same № rebuilds a riff from its number. Play ► steps through it; Copy tab copies an ASCII tab.

Snapshots, PDF, and the bars

Snapshots

Six saved charts: instrument, tuning, scale, colors, range, strings and riff. Click a name to bring one back; click  to save what is on screen into that slot; double-click a name to rename it; × empties a slot. The Helm's Snapshots menu recalls them while you are scrolled down.

Save as PDF

A one-page color chart of exactly what is on the neck: tuning, scale, colored notes, trace lines, fret range, strings and frets shown. The file is named after the scale, instrument and tuning. Prints fine in black and white.

The Helm (top bar)

Appears once you scroll past the scale heading: the charted scale, root and scale menus, the scale-note chips, label style, Show only colored notes, Sound, Save as PDF, Snapshots, and a  button back to the top.

Control Center (right)

Appears as you scroll: the big scale readout, then Scale, Instrument, Tuning, Neck (frets shown, fret range, strings, labels), Clear, Top and Chart buttons, each opening a small panel.

Sessions

Constellation remembers your last session in this browser. Start fresh (in Observer's notes) clears it. Snapshots are kept separately.

Tips and troubleshooting

- Sound needs one click first: browsers only start audio after you interact. Turn Sound on, then click a note.
- Nothing on the neck? Check Strings on the chart, Show only colored notes, and the fret range.
- The PDF button shows a message if a PDF cannot be built; send that message along and it can be fixed.
- On a phone, tap a note to see its card; the Helm keeps the root and scale menus under the readout.
- Once the app is hosted on the web, the browser's Install / Add to Home Screen puts it on your desktop or phone with its icon, and it works offline.
- Everything stays on your machine: there is no account, and nothing is sent anywhere.