

## MIDI docs

# Chords

[Forum Discussion Thread](#) - for comments, corrections, or questions about this article

When you initialize a track as a CHORD track type, the first parameter layer is a special “chord” layer. Data on this layer is represented as upper or lower case letters with an octave offset. The letters on CHORD layers are not related to note names - For example, an “A” is not necessarily an A chord.

```
G1T1 Def. Chn 1 PA:Chord TA:Gate Step 1 Maj.12/2 Vel:100 Len:G1d.
N/2 ---- F/2 ---- E/2 ---- N/2 ---- ---- F/2 ---- E/2 ---- N/2 ----
```

When not transposed, the chords in a chord layer are all C chord variants. A-P are C major chords and variants, a-p are C minor chords and variants. You can play other chords by transposing the chord track (either by external keyboard, or with a loopback bus track). For example: To play a D major chord, choose an “A” chord type (C Major, root position), and send a D note to transpose the chord track. To play an E minor chord, choose an “a” chord type (C Minor, root position), and send an E to transpose the chord track.

You can also use the static transpose function (MENU → Transpose) to transpose the chords by octaves or semitones (press SELECT to switch to semitone transposition).

If you're not up on your music theory, you might want to use [Force-To-Scale](#) when transposing chords to ensure that your results are always in key.

When not transposed, the 32 chord letters correspond to the following chords:

- **A-C:** Major I, Major II, Major III (transposed variants)
  - **A:** C Major (Root position) (notes: C E G)
  - **B:** C Major (1st inversion) (notes: E G C)
  - **C:** C Major (2nd inversion) (notes: G C E)
- **D-F:** Root note, 3rd note, 5th note (single notes)
  - **D:** note: C
  - **E:** note: E
  - **F:** note: G
- **G,H:** Root+3rd, Root+5th
  - **G:** notes: C E
  - **H:** notes: C G
- **I-N:** Maj6, Maj7, Maj8, Maj9, Maj10, Maj12 (4-note chords)
  - **I:** C Maj6 (notes: C E G A)
  - **J:** C Maj7 (notes: C E G B)
  - **K:** C Maj8 (notes: C E G C)
  - **L:** C Maj9 (notes: C E G D)
  - **M:** C Maj10 (notes: C G C E)
  - **N:** C Maj12 (notes: C G C G)
- **O-P:** Sus4 and Maj+
  - **O:** C Sus4 (notes: C F G)

- **P:** C Maj+ (notes: C E G#)
- **a-c:** Minor I, Minor II, Minor III (transposed variants)
  - **a:** C Minor (Root position) (notes: C D# G)
  - **b:** C Minor (1st inversion) (notes: D# G C)
  - **c:** C Minor (2nd inversion) (notes: G C D#)
- **d-f:** Root note, 3rd Min. note, 5th note (single notes)
  - **d:** note: C
  - **e:** note: D#
  - **f:** note: G
- **g,h:** Root+3rd min, Root+5th
  - **g:** notes: C D#
  - **h:** notes: C G
- **i-n:** Min6, Min7, Min8, Min9, Min10, Min12 (4-note chords)
  - **i:** C Min6 (notes: C D# G A)
  - **j:** C Min7 (notes: C D# G B)
  - **k:** C Min8 (notes: C D# G C)
  - **l:** C Min9 (notes: C D# G D)
  - **m:** C Min10 (notes: C G C E)
  - **n:** C Min12 (notes: C G C F#)
- **o-p:** CoG and Min+
  - **o:** CoG (notes: C F G)
  - **p:** C Min+ (notes: C E G#)

## Adding Notes to Chord Tracks

Chord tracks can have additional NOTE [Parameter Layers](#). You can enter notes on these layers, and they will be played along with any chords on that step.

The step recording feature is a great way to quickly enter chords on multiple NOTE layers - you don't have to use a CHORD track type to do that. Step recording will be covered in a future MIDIdocs article. Once that's written, I'll try to remember to come back here and link to it.

## Example: Playing a Chord Progression

This example is based on TK's [Tutorial on how to use chords, transposition, and loopback to play a chord progression](#) - that tutorial has audio examples and detailed steps. I'll summarize it briefly here, and give an example of how to play the same progression in a different key.

To play a iii-vi-i-iii progression in C Major - Em-Am-C-Em - is relatively simple, because it's in the key of C.

1: set force to scale to C Major

2: Enter some chord letters in the chord track - Since force-to-scale is enabled, you can enter pretty much any chord letter - the C minor variants will be forced-to-scale to fit the C Major scale anyway.

3: Initialize a different track as a note track on your SEQ, set the MIDI out port to one of the BUS ports. Enter a progression of notes as follows: E-A-C-E.

4: Set the transpose source on your chord track to the same bus that your NOTE track is on.

...Transpose + Force-to-scale will ensure that your chord track plays an Em-Am-C-Em progression.

## Playing the same progression in Eb Harmonic Minor

Notes in Eb Harmonic Minor are: Eb F Gb Ab Bb Cb D Eb

Chords in Eb Harmonic Minor are:

i: Eb Minor (notes: Eb Ab Cb) ii: F Diminished iii: Gb Augmented (notes: Gb Bb D) iv: Ab Minor v: Bb Minor vi: Cb Major (notes: Cb Eb Gb) vii: D diminished

So, a iii-vi-i-iii progression in the key of Eb Harmonic Minor is: Gb Augmented - Cb Major - Eb Minor - Gb Augmented. To play that progression, use the same chord track from the previous example, and:

1: set force to scale to Eb Harmonic Minor.

2: clear your NOTE bus track, and enter this progression of notes: Gb - Cb - Eb - Gb

...Transpose and force-to-scale will ensure that your chord track plays a Gb Augmented - Cb Major - Eb Minor - Gb Augmented progression.

## Resources

- [Tutorial on how to use chords, transposition, and loopback to play a chord progression](#) - with audio examples.
- SOURCE CODE: [seq\\_chord.h](#)
- SOURCE CODE: [seq\\_chord.c](#)

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