

USER GUIDE

midicake ARP



A Generator, Sequencer and Controller, for creative and generative music compositions using hardware or software instruments, samplers, and synthesizers.

4 parametric arpeggiators that synchronize with your compositions.

Being parameter driven, ARP gives you fine control of complex, rhythmic and musical sequences, taking you far beyond the capabilities of familiar arpeggiators.

Here's an overview...

Download the full user manual from midicake.com/downloads

PLAY Mode

Create the performance

MACROS

Control any assigned parameter for one or more tracks

DISPLAY

Shows the current:
- Note and Chord
- Octave and Tempo
- Bank and Patch

UP/DOWN

Change the global octave

ARPEGGIATOR TRACKS

Select or Mute each of the 4 Arpeggiator Tracks

Enable Follow to play the track sequence on the next bar after the previous track. e.g. if track 3 is set to follow, tracks 2 and 3 will play on alternate bars

The note pitch of all tracks will be offset by this value

KNOB control

Change the global Tempo

Disabled if an external MIDI clock sync is detected

Press to program Chord Chains

CHORDS

Chords define the notes that are made available to a track sequence

Select a chord, the sequence will update when you next select a note

Hold to enter CHORD EDIT Mode

- Select a preset chord using UP/DOWN or KNOB controls
- Create a custom chord using the NOTE buttons

LOAD/COPY

Press LOAD and a NOTE to select the active patch

Press COPY and a NOTE to duplicate the active patch

Use UP/DOWN to change bank

NOTES

Set the root note for the sequences during Playback

When stopped, pressing the note buttons will trigger the sequences. (LIVE PLAY)

SET Mode

Press to enter SET Mode, allowing track parameters to be edited

Press again to return to PLAY Mode

PLAY/STOP

PLAY to start the sequence
PLAY again to pause
STOP to... you guessed it!
STOP again to kill all MIDI notes



SET Mode

Shape the sequence

MACROS

Hold, then select one or more arps and a parameter to assign control

DISPLAY

Shows the selected parameter and value

UP/DOWN

Fine control of parameter values

Track Select

Each track has its own set of parameters that shape the note sequence

- Press to select a track
- Press again to select all tracks

KNOB control

Fast control changes to parameter values

Press to modify any parameters with programmable patterns. Indicated by a (P) icon

PARAMETERS

CHORD and NOTE buttons select the current parameter

e.g. Mode, Rhythm, Velocity, Gate, Octave etc.

Press repeatedly to cycle through multiple parameter options



MENU

Press to access the global menu options

MIDI input and output channels and behaviours, etc.

SET Mode

Press to return to PLAY Mode

PLAY/STOP

Play will continue in SET Mode

Parameter changes will apply in real time during playback

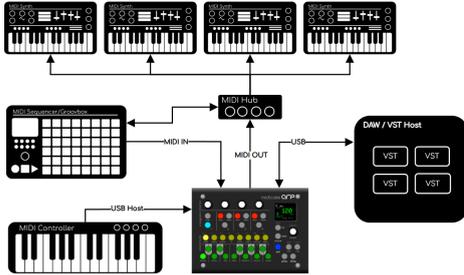
Connections

Midi Input, Output and Control

Connecting your Gear

Midicake ARP does not make sound.

It sends MIDI information to Synthesizers, Groove Boxes, Samplers, DAWs and Plugins.



Connect ARP directly to an external Synth via a MIDI cable, set the MIDI Channels to match and you'll be generating sounds.

Connect directly to a PC or Mac, via USB, to play software synths via a Digital Audio Workstation.

Each of ARP's 4 tracks can output on a different MIDI Channel.

Daisy Chain hardware synths using MIDI DIN cables or use a MIDI Hub to drive many synths and drum machines.

Try using a Hardware Sequencer (e.g. MPC) to send Chords to ARP to externally control ARP's Intelligent Note Sync.

Intelligent Note Sync

Real-time note tracking and note detection enables ARP to follow your performance and always stay in key.

- Connect an external keyboard or sequencer to MIDI IN or USB Host
- Set the Sync Channel parameter to match the incoming MIDI Channel
- Play notes or chords and ARP will use them to build its sequences for each arpeggiator

When incoming notes are detected, ARP will display the Notes used by the sequences.

External Control

All arp and chord selections, plus every parameter, can be controlled via MIDI CC.

Press and Hold CC Learn and select a parameter. Then, send a MIDI CC message to ARP and the control number will be assigned.

Banks and Patches

ARP has 16 banks of 12 patches.

MIDI Program Change messages can be used to change the active bank and patch.

See the User Manual for more information.



update



USB MIDI



USB HOST



MIDI OUT



MIDI IN

midicake
NO SUCH THING AS RANDOM.

USB

Power supply and MIDI USB port

- Connect to a VST Host
- Class Compliant MIDI over USB

Update

Apply firmware updates
(See Updates and Troubleshooting section)

MIDI IN/OUT

Supports:
- Clock, Note, CC and PC input
- Clock, CC and Note output
- MIDI THRU

Chords and Parameters

Custom Chords

In PLAY MODE, hold any of the 8 chord buttons to show the chord notes.

While holding...

- Use the Up/Down buttons or Knob control to select a chord from the list
- Press the Note buttons to create a custom chord
- Press the Reset button to revert to the default chord

Chaining Chords

In PLAY Mode, press the PROGRAM button (Knob control) to choose the chords to play in a chain (chord progression).

- The 8 chord buttons are colour coded
- Select a chord, then press a note button to add a link to the chain
- Each link in the chain is a chord playing for a specified time period
- Add up to 32 links in the chain
- Rotate the Knob Control to select any link in the chain and set the length
- Use SET to select the Chain Link parameter and UP/DOWN to set the value
- Press Program to exit

During playback the chord chain will automatically set the chord and root note for each bar. It will repeatedly loop the chain until a note button is pressed or an external sync note is detected.

Parameters

In SET Mode, the note and chord buttons select specific parameters.

Each parameter impacts the sequence of an arpeggiator in a different way.

- Press buttons repeatedly to cycle through multiple parameter options
- A detailed description of each can be found in the User Manual
- See the Tips section for hints on how to use the parameters

The Mode parameter controls how the sequence is played, as an arpeggio, chord, pad or drone

Midi Out sets the output MIDI channel allowing ARP to play up to 4 separate Hardware synths and/or VSTs over USB.

Editing Patterns

Rhythm allows control of the Velocity of individual steps in a track's sequence by applying a pattern. Groove controls Delay in a similar way.

- Press the PROGRAM button (Knob Control) to edit individual patterns
- There are 16 patterns per bank

Parameter Patterns

Several parameters have the ability to be individually sequenced.

- For parameters such as Velocity, Delay, Chop and Ratchet, press the PROGRAM button to begin editing the 8 step pattern.
- You can also change the length to create polyrhythms within the patterns.

Modulation & FX

The 2 modulation parameters per arpeggiator enable you to modulate any parameter during playback.

- Press the Mod button repeatedly to cycle through the modulation settings

Similar to Modulation, FX applies a pseudo random variance to parameters to overlay interesting patterns onto your sequences.

Assignable Macros

The 4 Macro Knobs can be assigned to any parameter for one or more arps.

- Press and hold the Macro Knob
- Press the Arp Select buttons to select one or more arps to control
- Use the Note/Chord buttons to select the parameter you wish to control
- Release the Macro Knob

Global Settings Menu

Global Settings are not specific to an individual arp.

- Press the Set button to enter SET MODE
- Then press the Menu button

See the User Manual for a full list and description of the menu options

Patches

Changes to the 4 arp sequence parameters are saved automatically in the currently loaded patch. ARP has 16 Banks of 12 Patches. The 12 patches are selected using the corresponding 12 Note buttons.

Change Patch

- Press the Load button
- Use the Up/Down buttons to change the Bank
- Press one of the 12 Note buttons to load the Patch

Copy Patch

- Press the Copy button
- Use the Up/Down buttons to change the Bank
- Then press the Note button for the patch you wish to copy to

During playback, Patch changes will be applied on the bar

Example/Default Patches

ARP is pre-loaded with 12 default patches on each bank. These examples show how parameters can affect the sequence. Here's a quick guide...

- Use a polyphonic synth on MIDI channel 1 or set each track to a different MIDI OUT channel
- Try setting all tracks to 'follow' to hear each track sequence in turn (see fig 1)
- Switch chords and patches during playback to turn the sequence into a composition

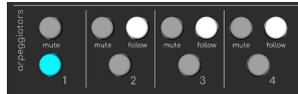


fig 1

Patch 1 (C) - Basic Quartet

- Set all tracks to play simultaneously, the 4 sequences should compliment

Patch 2 (C#) - Direction and Bounce

- Each sequence differs only by the direction and bounce parameters
- Direction and Bounce both define how individual notes are selected from the available notes in the chord or scale

Patch 3 (D#) - Repeat and Jump

- Each track has different repeat or jump settings
- Jump defines the number of notes in the scale that will be skipped between steps

Patch 4 (D) - Time Divisions

- All 4 tracks are playing the same sequence but at a different number of beats per bar

Patch 5 (E) - Triplets & PolyRhythms

- Tracks 1 & 2 have a time division of 1 and 4 beats per bar
- Tracks 3 & 4 have a division of 3 and 12 beats per bar creating an interesting polyrhythm
- To access triplet timings, change the Time Factor to 3

Patch 6 (F) - Step Offsets

- Tracks 2 & 4 are offset from 1 & 3 by two steps. Set 2 and 4 to follow

Patch 7 (F#) - Note Offsets

- Tracks 2 & 4 are offset from 1 & 3 by a number of notes, creating harmonies of the same sequence
- The Note parameter has a second option to switch the offset mode between scale and chromatic, press the button twice to access

Patch 8 (G) - Note Delay

- Tracks 2 & 4 have a Delay value that push the notes off the main beat

Patch 9 (G#) - Mode - Chords and Pads

- Tracks 1 & 2, in Chord Mode, will play all sequence notes simultaneously on each beat
- Tracks 3 & 4, in Pad Mode, will play only when the Note/Chord is updated

Patch 10 (A) - Rhythm and Groove Patterns

- Tracks 1 & 2 have a Rhythm Pattern, affecting note velocity
- Tracks 3 & 4 have a Groove Pattern, affecting note timing

Patch 11 (A#) - Modulation

- Track 1 modulates the Octave parameter. Track 2 modulates Note Delay
- Tracks 3 & 4 have an alternating velocity sweep

Patch 12 (B) - Modulation steps and timing

- Tracks 1 & 2 have an alternating modulation on Time Division, causing the number of notes in the bar to change
- Track 3 has a modulation on the number of steps
- Track 4 has a timing delay increasing over 4 bars

Workflow Ideas

- Connect Midicake ARP to a single hardware or software synth via MIDI Out or USB and create a simple sequence on track 1
- Explore the Chord and Note buttons to create interesting chord progressions
- Copy your settings to a different patch and tweak the settings slightly, then load each patch in turn during playback to get interesting variations
- Copy the track 1 settings to track 2, then tweak the settings to get the two sequences playing together nicely. Do the same for track 3 and track 4
- Create a long-running sequence by setting each track to follow the previous one
- Increase the complexity of the sequence by modulating one or two settings across the 4 tracks
- Program the Macro Controls to modify any setting you desire, to create unique performances
- Change the MIDI Out Channel setting of each track to control a different sound generator or hardware synth
- Connect 4 Hardware synths and 4 Software VSTs and control them all
- Connect a MIDI keyboard via USB or MIDI IN. Set the MIDI Input Channel to match the keyboard. Then play the keyboard, and the sequence will track the incoming notes
- Connect a sound generator via MIDI Out or USB to the same MIDI channel as the keyboard, then you can play sounds with the keyboard and ARP will continue to track the incoming notes
- Hold the Chord button to experiment with Scales and Custom Chords
- Set the MIDI CONTROL parameter to OUT and connect to external sequencers, DAWs, drum machines, etc. to control their playback and tempo

- Set the MIDI CONTROL parameter to IN to control ARP with external sequencers and DAWs

Tips

- Start with something simple and gradually increase the complexity
- To begin with, set the sequence to a small number of Steps
- Sometimes settings won't seem to have an effect because of another setting, e.g. bounce and jump won't do anything if Steps is set to 1
- If it is unclear what's happening in your sequence try setting the Chord to the Chromatic Scale.
- Check you are in Set Mode before tweaking settings, it's easy to change the chord or note during a performance. Buttons will be blue in Set Mode.
- Octave, Note, Steps, Step Offset, and Delay settings can all be used to create rounds or out-of-phase sequences over two or more tracks
- Use Repeat to build simple bass lines
- Try assigning parameters to the Macro Controls and use those to experiment and explore parameter combinations
- Rhythm Patterns may not work on Hardware synths that are not velocity sensitive
- Beware of polyphony when working with mono synths, the results can be interesting
- Modulations operate from the current parameter value, so if it's not doing what you want, try adjusting the main parameter to see what happens
- Beware modulating Time Division and Delay settings, modulation is only updated on each note played and if the time between notes is pushed to 2 or more bars, it'll seem like the sequence has stopped. Just wait, or set the modulation back to Off and things will return to normal.

Updates and Troubleshooting

Firmware Updates

At Midicake, we're committed to providing regular updates to ARP to continually add new features and functionality

ARP is designed to enable updates to be added easily. Just go to...

- midicake.com/downloads

to get the latest firmware and instructions on how to update.

Troubleshooting

Only One Note Heard?

On Play, you only hear the first note played but ARP looks like it's still playing.

- Is your instrument monophonic?
- Try setting Voice Mode to "Mono" via the MIDI OUT parameter
- Try reducing the Gate value to 1 Tick

Notes keep playing after pressing Stop?

This can occur (rarely) when multiple notes of the same pitch are sent to some instruments.

- Setting ARP to Mono Voice Mode may help
- Pressing Stop twice should stop all notes. If all else fails, restart ARP and/or the connected instruments

Still having issues? - Factory Reset

- Hold the RESET button for 2 seconds to enter the BIOS menu
- Select Full Factory Reset to clear all stored settings including your patches

Alternatively: Unplug the USB cable, then reconnect the USB while holding down the RESET button.

Learning More

While easy to set up, Midicake ARP offers a wealth of complex features and capabilities.

We've carefully developed a comprehensive user manual that guides you through all ARP modes, functions, and features to support your journey.

Explore the full user manual at...

- midicake.com/manuals

Safety Warning

ARP is powered by 5V USB and complies with applicable safety standards. To ensure safe operation:

- Never expose the device to water or excessive moisture
- Use only the provided USB cable or certified replacements
- Do not attempt to open, modify, or repair the internal components
- Contact Midicake before attempting any modifications

Tampering with internal components may result in electric shock, damage to the device, and void your warranty.

Midicake Ltd. assumes no liability for injuries or damages resulting from unauthorized modifications.

Contact Us

If you have any problems, questions or ideas, please let us know.

- midicake.com/contact-us
- midicake.com/forum

We're always happy to help, talk and share ideas.

Have fun and make music!