

Misha[®] Quick Reference Guide

MIDI In/Out
Generate/receive MIDI note, velocity, pitch bend, CC and PC messages

USB OTG
Supports USB host/device and update over USB

Key Knob
Scrolls through musical keys
Press+turn for alt functions

User 1/2/3/4 Buttons
Perform user defined intervals/functions. User 3/4 have alternate -/+ functions

▷ Button
Undoes last note change, restarts the Tone Row, or performs other functions

Interval Buttons
Denote a change in pitch from the previously sounded note equal to the selected number of steps away in the current key and scale

T/G and CV Out 1/2/3
Generate trigger/gate and CVs for note values over an 8 octave range

T/G and CV In X/Y/Z
Programmable T/G and CV inputs to support intervals, pitch bend and other functions

Audio Output
Stereo audio playback with internal oscillator

microSD Card
Load/save presets, scala files and samples

Clock Input
Sync to external clock sources

●/■ and ▶/|| Buttons
Record/Stop and Play/Pause a Tone Row

Scale Knob
Scroll through scales
Press/turn for alt functions

LCD Display
Shows current key, scale and a solfège wheel that indicates note position and note name

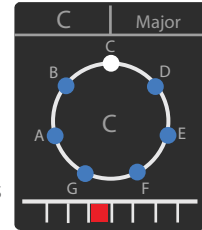
▼ / ▲ Shift Buttons
Navigate among screens
Press/hold allows functions like saving/loading presets

Home Menu Navigation

Play Menu

Play menu is where Misha lives for real-time performance.

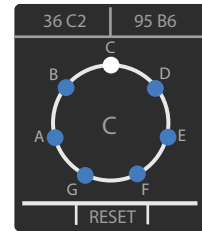
- Pressing Interval and User Buttons plays musical lines in the chosen key and scale
- Bottom row indicates octave range and current octave of note
- Key Knob scrolls through musical keys as you rotate it (press/hold to load on release)
- Scale Knob scrolls through all scales as you rotate it
- Press/release Scale Knob to cycle through 4 banks (S1/S2 Factory, U1/U2 User) of 50 scales
- When a scale has modes, a small green triangle is shown in the lower right corner of the scale name window. Press/rotate the Scale Knob to scroll through the scale modes



Note Range Menu

From the Play Menu, press ▼ Shift Button once to access the Note Range Menu, which allows optimizing note range for Key/Scale and instrument/sound with Misha.

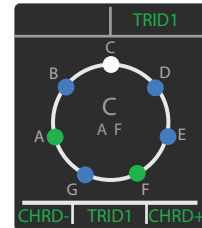
- Key Knob sets low note limit
- Scale Knob sets high note limit
- Note Range can be reset to previously stored values with ↵ Button
- Note Range is saved with preset



Chord Menu

Press/hold ▲ Shift Button to access Misha chords. Misha currently has 9 chord options.

- Select chord 1 to 9 by pressing Interval Button -4 to +4 respectively
- Decrement or Increment through chord list by pressing User 3 (-) or User 4 (+) Buttons
- Scroll through chord list with Scale Knob and press to select the chord
- Press ↵ Button to toggle chord on/off

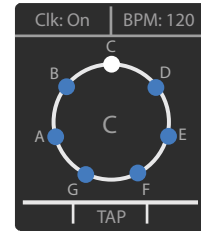


Clock / Tone Row

Clock Menu

Press ▲ Shift Button to page to Clock Menu.

- Rotating Key Knob turns internal clock On/Off
- Rotating Scale Knob increments/decrements internal clock BPM by 1 BPM
- Pressing and rotating Scale Knob provides coarse adjustment by 5 BPM
- Tapping the ↵ Button allows real-time tap tempo setting



Tone Row

Misha can record and play a Tone Row sequence: a note pattern in the chosen key and scale which won't repeat a note until all the notes in the scale are used up. This Tone Row sequence can be played back manually or in an automated fashion driven by clock or ext trigger.

Record/Play Manual Sequence (Manual = Clock Off or Paused)

- Choose Key and Scale to record a Tone Row sequence
- Hit the ●/■ button and Misha will go into Record mode (lights red)
- Press Interval Buttons to record a Tone Row sequence
- Hit ►/|| button (lights green) to finish recording before using up all the notes in the scale
- Or Misha will automatically go into Play mode (lights green) when all the notes in the scale are used up
- Once in Play mode, press Interval Buttons to walk through/play the Tone Row sequence manually
- ↵ Button resets the Tone Row (1st note in sequence)
- You can also change Key and Scale to play back the Tone Row with new settings
- To get out of Manual Play Sequence, press ●/■ button

Auto Play Sequencer

Auto Play Seq (Auto = Clock On or external Clock/Trigger source)

With internal clock On or external clock patched to Clock Input jack, once you record a Tone Row sequence, Misha will automatically start playback at the current tempo.

- Press ►/|| Button to pause Tone Row sequence and jump out of Auto Play
- Press ►/|| again to jump back into the Auto Play Sequence
- Press ●/■ to stop Tone Row sequence, press again to record new sequence.

You can edit/modify the Sequences in various ways:

Play Option (upper left corner of screen)

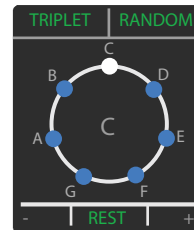
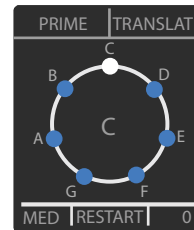
- Rotate the Key Knob to scroll through different Play Options and hear the Tone Row played in different ways: Prime (forwards), Retro (backwards), Random, Pendulum, Transpose Up and Down, Translate Up and Down
- Holding Key Knob down and rotating it allows Play Option to happen on release after it is selected

Interval Button Option (upper right corner of screen)

- The Interval Button Option defines what the Interval Buttons do while playing back an automated Tone Row.
- Rotate Scale Knob to select an Interval Button Option: Interval, Clock Div, Transpose, Translate, Octave, Chord
 - Press/hold Scale Knob for Last, Reset or Random of the selected Interval Option
 - Press/hold and rotating Scale Knob scrolls through parameter values for the selected option
 - Press an Interval Button to select 1 of 9 parameter values for the selected option
 - Interval Button Option parameter value is shown in the lower right corner of the screen

Other Buttons in Auto Play to modify the note sequence

- Press ⇨ Button to start Tone Row from the beginning (1st note in sequence)
- Hold Key Knob down and press ⇨ to toggle Tone Row between Normal and Inverted
- Press User 3/4 (-/+) Button to shorten/lengthen the note duration: SHORT, MED, LONG
- Press and hold User 3/4 (-/+) Button in combination with any Interval Button, User 1/2, ⇨, Key, or Scale Button, to erase/add events to your tone row

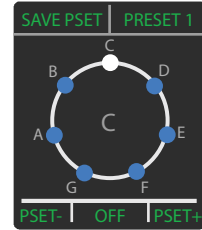


Presets

Misha currently has 18 preset locations. Press/hold ▼ shift button to access Misha presets.

- Load preset 1 to 9 by pressing interval button -4 to +4 respectively
- Decrement or increment through preset 1 to 18 by pressing User 3 (-) or User 4 (+) Buttons
- Scroll through preset list with Scale knob, press to load preset.
- Press Key Knob to go to Save Preset options

NOTE: You can also save/load presets to/from a microSD card. See Specifications for more information.



Setup Menu

Press/hold Key and Scale Knobs together to enter Setup Menu, which allows access to a number of performance and system settings including

- User Button Functions
- CV Out range and tuning
- CV In range and functions
- MIDI I/O options/mappings
- Clocking options
- Presets and Scales management
- microSD card
- and other System settings

NOTE: there is an 'About Misha' page which indicates current firmware version and other status as well as a QR Code shortcut to Eventide website for more info online.

MIDI

MIDI Out

Misha transmits MIDI note, velocity, pitch bend, and CC messages when triggered by panel buttons, CV In mappings and MIDI In.

MIDI In

Misha can be played with a traditional MIDI keyboard controller or controlled by any MIDI device that transmits MIDI note or CC messages.

MIDI channel settings, program change and pitch/CC mappings can be found in the Setup Menu > MIDI.

Specifications

Misha is a standard 28hp wide Eurorack module. It's 3/4" (~19mm) deep, +12VDC/105mA, -12VDC/5mA
CV Out: -5V to +5V, 0V to 5V, 0V to +10V (independently configurable)
CV In: -5V to +5V, 0V to 5V, 0V to +10V (independently configurable)
Audio Out: 2 channels/stereo, DC coupled

NOTE: Misha supports a microSD card (included) that can save and load settings, presets, maps, or entire machine
- Import your own scale files in Scala format in Setup Menu > Scales > Add via SDCard
- Save settings/presets/maps to microSD card in Setup Menu > SDCard > Save
- Load settings/presets/maps from microSD card in Setup Menu > SDCard > Load

Be sure to get the latest Misha firmware update!

NOTE: To check Misha's current firmware version, view Misha LCD display on power up.

- To update, download/install latest version of Eventide Device Manager
- Power up Misha while holding down ▼ Shift Button and User 1 Button
- User 1 and User 2 Buttons are lit to indicate Misha is in update mode
- Connect Misha to a computer via USB 2.0 Micro to A cable (included)
- Follow update instructions presented within the EDM application
- Disconnect USB connection and power cycle Misha

Misha Factory Reset

- Go to Setup Menu > System > Factory Reset
- Press Key Knob to select. It will ask "Are you sure?"
- Press Key Knob again to execute
- Or you can power up Misha while holding down Key and Scale Knobs

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