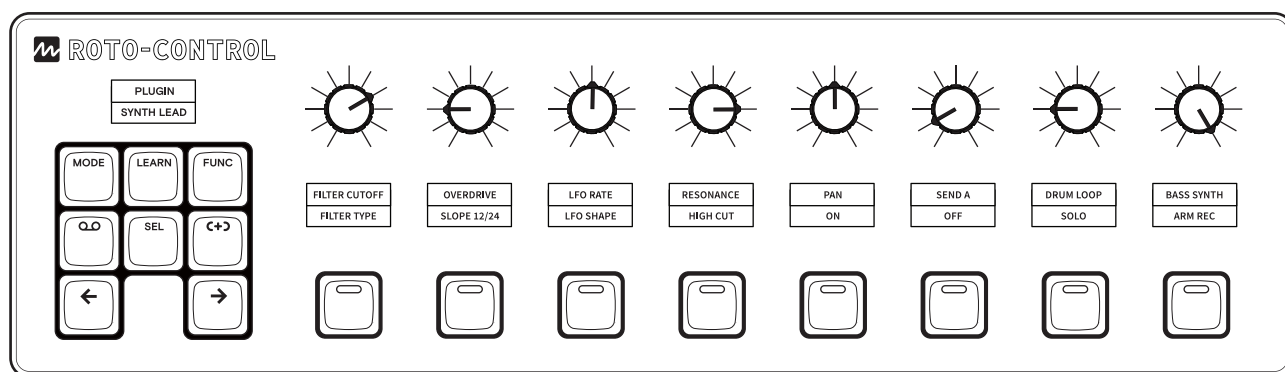




ROTO-CONTROL

Motorized MIDI Controller for software and hardware

ROTO-CONTROL

User Manual

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Introduction

Roto-Control is a motorized MIDI controller for software and hardware. Roto-Control brings Melbourne Instruments’ motorized technology to a MIDI controller in a powerful, portable, affordable tool for studio and live applications.

Unlike anything seen before, rethink software and hardware interactions via fully assignable motorized touch-sensitive knobs, user definable haptics for detailed control, high-res screens providing easy-to-read labels for every control, and internal memory with storage for thousands of assignments. Powerful, compact, and portable, Roto-Control features three main modes of operation: MIX, PLUGIN and MIDI with Motion Recorder.

Roto-Control’s patent pending motorized knobs are a world first for MIDI controllers. They have been custom designed from brushless drone motor design. They are extremely robust, high reliability design that will practically never wear out. The position sensing is achieved using a contactless optical system with extremely high resolution and ultra-low noise.

About the User Manual

This manual is a guide that assumes you already have a good understanding of the MIDI specification and its application across music technology, both hardware and software platforms. This manual will guide you through Roto-Control’s operation and how to map and control MIDI compatible hardware and software.

Specifications subject to change

The information contained in this manual is correct at the time of release. However, specifications are subject to change at any time as new features are added and updated. Melbourne Instruments reserves the right to change or modify specifications without notice.

Safety & Compliance

Tested to comply with FCC Standards FOR HOME OR OFFICE USE.

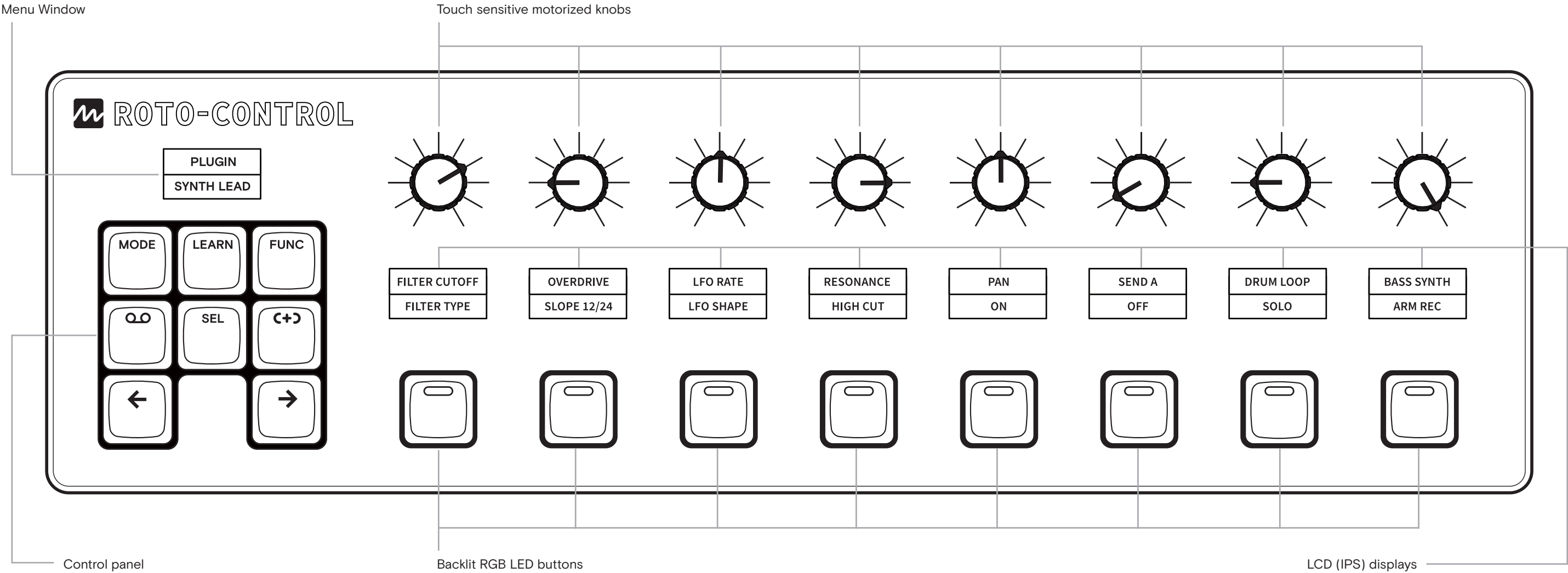
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Overview

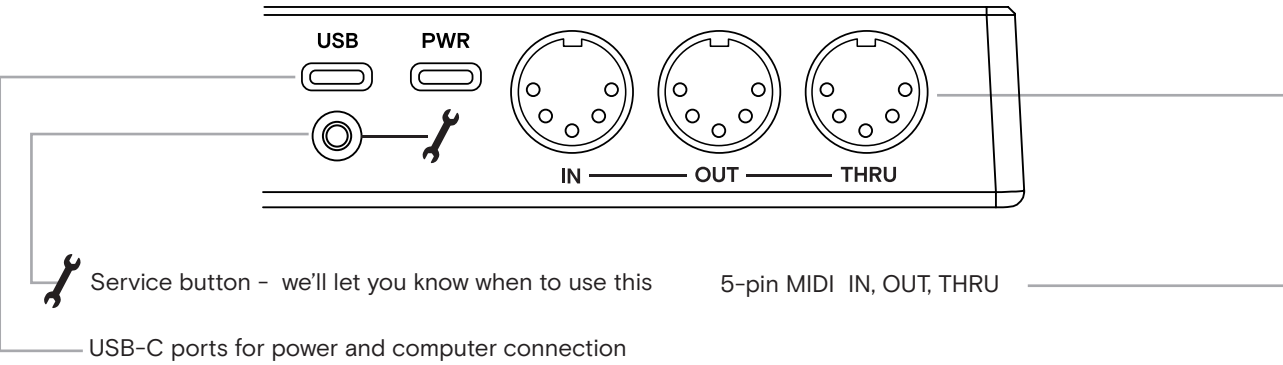
Front Panel layout



Control Panel Buttons

- MODE** Select mode MIX, MIDI, PLUGIN
- LEARN** Assign MIDI parameters to knobs and buttons.
- FUNC** Mode specific functions.
- TRANSPORT** Ableton Live control in MIX and PLUGIN Modes, universal MIDI start/stop in MIDI Mode.
- SEL** Select button, additional mode specific functions, see next section.
- LOCK** mode specific functions, see next section.
- NAVIGATION** Pages, tracks, plugins and parameters.

Rear Panel / IO



3 Modes of Operation

Quick reference guide

Press MODE to select from MIX, PLUGIN and MIDI modes.

MIX:

Plug & play dedicated Ableton Live audio mix environment. Automatically sync your Ableton Set, with all track names and colors instantly appearing on Roto-Control displays.

PLUGIN:

Instant plugin recall from Ableton Live. Plugin parameters and labels are directly taken from Ableton Live with one touch, one-time, intuitive easy setup. Assignments are stored on Roto-Control for faster Live workflow.

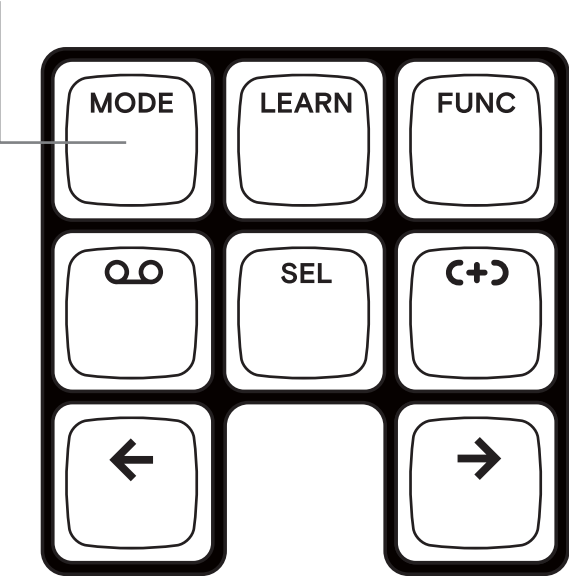
MIDI with Motion Recorder:

Control MIDI hardware and software: synths, DAWs, lighting, media applications and more. Motion Recorder brings motorized automation to external gear.

Console Functions in different modes

Within each mode the ‘console’ buttons perform different functions, except **MODE** which is constant and will always take you back to the Mode selection page

MODE button (choose MIDI, PLUGIN or MIX modes).



MIX

MIX mode

Touch any knob to select a track.

FUNC full track control of all knobs; SENDs, PAN and volume fader for the selected track. All knobs for the selected track are accessible here.

SEL Hold button to change the knob and button defaults. The MENU WINDOW will display updated knob assignments upon release.

↔ Navigate all tracks, up to 64 tracks displayed.

↔ **PRESS BOTH ARROWS** to access return and master tracks.

⏮ Ableton Live transport controls.

C+ LOCK prevents you from changing tracks when touching the Roto-Control’s knobs.

Roto-Control will automatically update track names and colors when connected to an active Ableton Live Set.

PLUGIN

PLUGIN mode

LEARN One touch to assign plugin parameters.

Press LEARN, touch knob or button, then click the parameter on Ableton Live. Roto-Control will grab the parameter name automatically from Ableton Live. Need only LEARN a plugin parameter once, anytime you use that plugin in the future, your assigned parameters will be there instantly! All learned assignments are stored in the Roto-Control, no need to save or recall.

SEL See all plugins on selected track. Instant recall when choosing a different plugin. Hold **SEL** to choose a different plugin on the same track.

Toggle **SEL** to see all plugins on the selected track and activate plugins on/off.

FUNC select a different track.

FUNC + ↔ Navigate all tracks (up to 64).

C+ LOCK and remain in control of the selected plugin, while navigating others.

⏮ Ableton Live transport controls.

SEL + ↔ Navigate all plugins, up to 64 displayed.

When selecting a track or plugin on screen, Roto-Control will automatically follow and snap to the values for that plugin.

MIDI

MIDI mode with Motion Recorder

LEARN Easy MIDI learn knobs and buttons.

SEL Instant recall of up to 64 setups stored on Roto-Control.

⏮ Universal MIDI start/stop.

Access Motion Recorder record and playback modes.

FUNC MIDI synchronization options, internal or external clock. Select Motion Recorder step length.

SEL + ↔ Navigate all setups (up to 64).

Additionally, access the system menu by pressing SYSTEM > MODE

SYSTEM

STORE DEMO

This mode will automatically cycle through Roto-Control features. It is intended for stand-alone operation as an in-store demo and has no other functional value. To exit STORE DEMO, press FUNC + both arrow keys.

SENSITIVITY

This adjusts the touch sensitivity for Roto-Control’s knobs. Touch sensitivity has 9 different settings from LOW to HIGH. Default setting is NORMAL 5 and should work for most users. If knobs are not responding accordingly to touch, try increasing the sensitivity. If the sensitivity setting is too high, you might experience ‘false touches’ whereby knobs might respond like they have been touched, please reduce the sensitivity. Strong electromagnetic fields can also cause ‘false touches’ and we recommend reducing sensitivity

ABOUT

Press to check the firmware version Roto-Control is currently running. The unique serial number for Roto-Control is also displayed.

Getting started

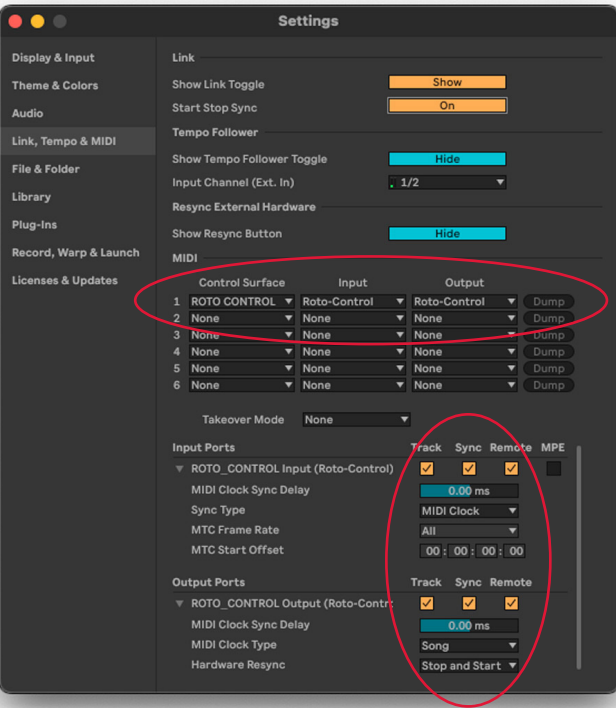
We know you are excited to start using your Roto-Control, but first please download and install the Roto-Setup App. Grab the latest version here, which includes the latest firmware for your Roto-Control.

www.melbourneinstruments.com/roto

Once you have installed the Roto-Setup App, connect your Roto-Control to your computer via the port labelled 'USB' and the App will update the device with the latest firmware. Please see page 17 for more details on the Roto-Setup App.

Using Ableton Live with Roto-Control for the first time

Roto-Control needs to be selected as a 'Control Surface' in Ableton Live in order to use it. Open the Settings page in Ableton Live and go to the tab Link, Tempo & MIDI tab, ensure ROTO CONTROL is selected as a Control Surface with Roto-Control selected as an Input and Output device. Be sure to tick Track Sync and Remote boxes for Input and Output Ports.



Modes of operation:

MIX Mode

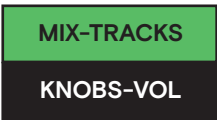
MIX Mode is fast and intuitive way to control the audio environment of Ableton Live. Roto-Control will display track names and colors directly from the active Ableton Live set. No setup required; all data is taken from the active Ableton Live set.

Touching a knob on Roto-Control will select the track in the active Ableton Live set. Use the arrow keys to navigate tracks, with up to 64 tracks available across 8 pages.

All communication between Roto-Control and Ableton Live is bidirectional, all actions in Ableton Live are reflected immediately on Roto-Control and vice-versa.

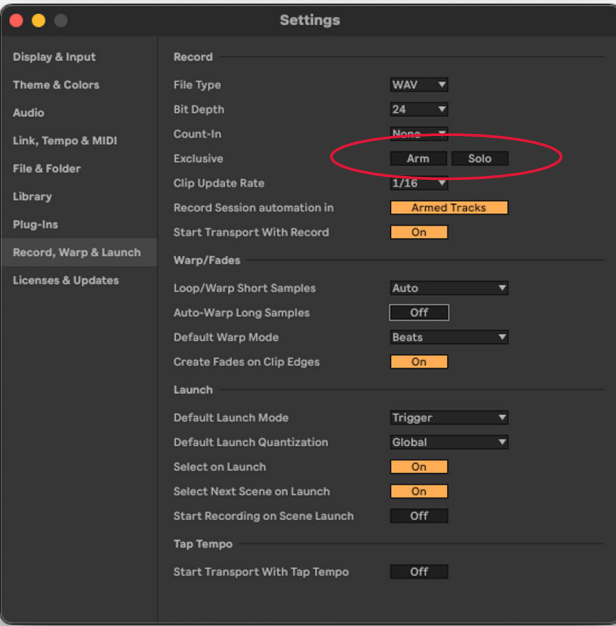
SEL Select

When in MIX Mode the knobs on Roto-Control default to volume, and buttons to track activation (on/off) for main page of controls. These can be changed pressing the **SEL** button. The lower half of the MENU display will indicate knob function, **VOLUME, PAN or SEND** (A-L). The MENU window display will show a little arrow to indicate more pages are available, either to left or right.



Hold down **SEL** button to change the function for the main page of controls. Knobs can be mapped to **VOLUME, PAN** or any **SEND**. To select a SEND, toggle the button to select the SEND (A-L) to control. The MENU window will display knob assignments when you let go of the SEL button (shown above).

Buttons can be mapped to track activation **ON/OFF, SOLO** or **ARM REC**. All actions taken on Ableton Live will also be reflected on the Roto-Control. To **SOLO** or **ARM REC** more than one track at a time, ensure exclusive Arm and Solo are deselected in Ableton Live settings.



FUNC Function / Track Focus

Pressing the **FUNC** will put Roto-Control into Track Focus where all knobs for the selected track are accessible here: control of SENDs, PAN and volume for the selected track. Communication is bidirectional. Selecting a track on Ableton Live will also select the track on Roto-Control. Moving a fader on Ableton Live will also move the knob on Roto-Control. The MENU window will display the current selected track.

←→ Arrow Keys / Return and Main Tracks

Pressing both arrow keys at the same time to access return and main (master) track. These can be controlled as described above. The arrow keys will blink green to indicate you are accessing the return tracks. Roto-Control will display up to 12 return tracks. Press both arrow keys to exit.

⏻ Lock Button

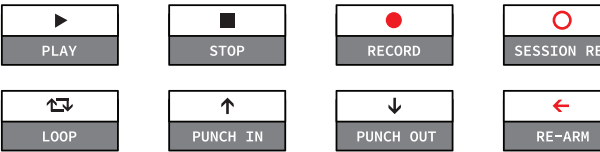
The lock button will turn off touch sensitivity preventing the changing of tracks when touching Roto-Control's knobs. You can still navigate and change tracks on screen and Roto-Control will not follow until lock is disengaged.

⏮ Transport Controls

When in MIX mode, press **⏮** for Ableton Live transport controls.

Use the arrow keys in transport control to navigate arrangement position.

Note: MIX Mode and PLUGIN Mode share the same Ableton Live transport controls. You can freely switch between these two modes without interrupting workflow, playback or recording.



PLUGIN Mode

Roto-Control has a highly flexible approach to controlling and learning Ableton Live devices and third-party plugin parameters, where you choose the parameters you want to map and control and where they are assigned on the Roto-Control.

When learning parameters in PLUGIN mode, Roto-Control will automatically take the label of the parameter and display it on the knob/button window. Every mapped (learnt) parameter to Roto-Control is automatically saved on the unit, therefore you only need to learn a parameter once and each time you recall a device/plugin your previously learnt parameter/s will appear, no further setup required!

Up to 64 devices/plugins, with up to 128 controls per device/plugin can be saved on Roto-Control. More devices/plugins can be saved externally via the Roto-Setup App.

Roto-Control works differently with Macros in Ableton Live, where no learning is required. Roto-Control will automatically map and assign up to 16 Macro controls, where all labels are taken directly from the selected Macro/rack, similar to how MIX Mode works. Labels need to be changed on the Macro in Ableton Live and subsequently updated on Roto-Control’s displays. Macro setups are not saved to Roto-Control as all Macro data is taken from the selected Macro in the active Ableton Live set.

Note: Roto-Control recognizes Macros as an individual plugin, therefore all plugins within a rack/device can also be mapped, assigned and selected on Roto-Control.

SATURATOR

1-AUDIO

MENU window displays the current selected device/plugin and track name.

SEL Select

Hold SEL button down to see all devices/plugins on a selected track. Select a plugin/device by pressing the respective button. Roto-Control has bi-directional communication with Ableton Live and selecting a device/plugin on Ableton Live will see Roto-Control instantly display the same device/plugin, with knobs snapping to the parameter positions or showing automation.

Toggle SEL to activate/deactivate (mute) devices/plugins on the selected track.

FUNC Function Key

Press FUNC to see the tracks from the active Ableton Live Set, press the respective button to choose the desired track. Navigate pages with the arrow keys. You can also choose a different track by going into MIX Mode.

↵↵ Arrow keys

Navigate up to 8 pages of controls (64 knobs and 64 buttons) per device/plugin.

🎵 Transport Controls

PLUGIN Mode shares the same Ableton Live transport controls as MIX Mode. You can freely switch between these two modes without interrupting playback or recording. For more info see MIX Mode on page 8.

🔒 Lock Button

The LOCK button when pressed will blink green to indicate Roto-Control will remain locked to the current device/plugin. This allows you to navigate other areas of Ableton Live without Roto-Control changing controls. This is great for performing and focusing on a single device or plugin. The MENU window will display the current selected device/plugin and track name. To deactivate, press the LOCK button again and Roto-Control will change to the selected device/plugin on Ableton Live.

Mapping and Learning Device/Plugins to Roto-Control

Roto-Control's flexible learning behavior allows you to choose the parameters you want to control and where they reside on the Roto-Control. The exception is Macros (as part of instrument and effects racks), where no learning is required. Roto-Control will display Macro control labels directly from the selected rack.

A. Learning Ableton Live device and native audio effects

Press LEARN, touch knob or button, then move (rotate or click) the parameter on Ableton Live device. Roto-Control will grab the parameter name automatically from Live.

Here are the steps to learning:

- Press **LEARN** on Roto-Control and will display ‘--’ on each window indicating that knob or button is available.

Note: If there is a mapped control to that knob or button, you can clear the assignment before re-mapping a control. Please see the following Clearing Mapped/Learnt Parameters section on page 12.

- Touch any knob or button you want to map a parameter to. The window for that control will display LEARNING and the MENU window will also display which knob or button you have selected.

Note: knobs and buttons are independent of each other; you can learn any parameter to either control. For example, you could learn a standard pot from a device plugin into a button, effectively turning it into an on/off switch.

- On the active Ableton Live set, click or move the individual parameter on the device/plugin you wish to control with Roto-Control. Instantly Roto-Control will map the learnt parameter to your chosen knob or button. The label of the parameter will also appear in the control window.

Note: the default color for mapped parameters on Roto-Control is a dark blue with white text. This can be customized in the Roto-Setup App along with changing the haptic control of knobs and toggle for buttons, see page 18.

- Press **LEARN** to confirm your assignment. You can continue to learn more parameters to knobs and buttons by repeating steps 2 & 3, remembering to press LEARN once you have mapped your controls.

Confirming your mapped controls will automatically save them to Roto-Control's memory. These assignments will instantly appear anytime you recall the same device/plugin on Ableton Live.

Note: device/plugin setups can be imported and exported via Roto-Setup App.

B. Working with Third-party plugins and instruments

In order for Roto-Control to remember and recall third-party plugins in the same manner as Ableton Live devices and native audio effects (as described in the previous section), you'll need to first configure the parameters you want to control on the plugin.

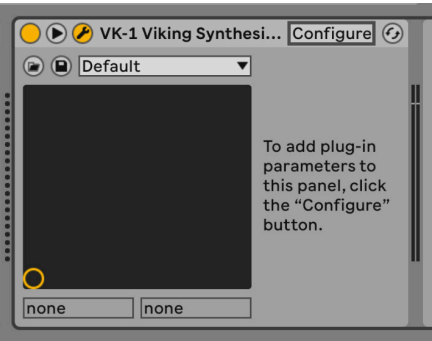
Note: Some third-party plugins might be pre-configured, although these can be further re-configured to your preference.

Configure the device parameters:

- Select the plugin you want to map and drop it into a track on Ableton Live.
- Click unfold the device parameters button.



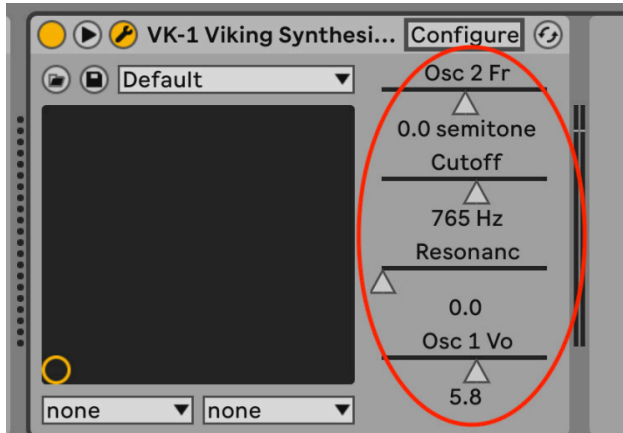
- Click the **configure** button, it should turn green. This indicates the plugin is waiting for parameters to be added.



- Click the parameters on the plugin window you want to control. These will appear as device parameters as you add them.

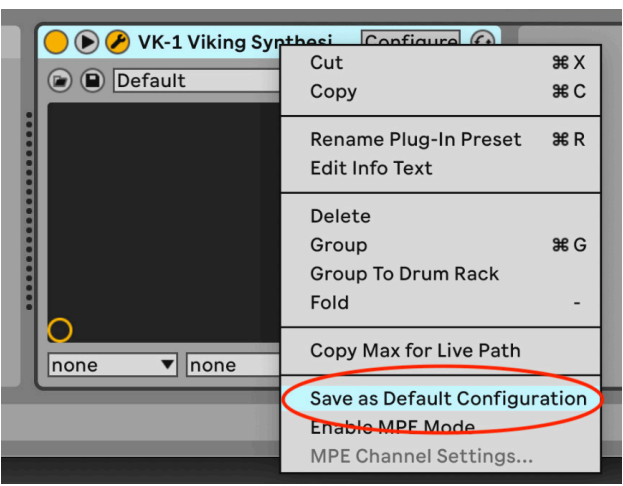


5. Click the Configure button to confirm it should turn color from green to grey.



6. Right click in the device title bar and choose Save as Default Configuration. This will ensure Roto-Control can recall the plugin with the parameters you mapped every time you recall the plugin, including using the same plugin with multiple instances per Ableton Live session.

Note: When using multiple instances of the same plugin on the same Ableton Live session in different racks, Roto-Control will recognize presets within the plugin and knobs will instantly snap to position.



7. Now you can LEARN the third-party plugin parameters to Roto-Control as described in the previous section A. Learning Ableton Live device and native audio effects to map your parameters.

C. Clearing Mapped/Learnt Parameters

To clear and remove a mapped parameter that you might have assigned by accident or wish to change.

1. Hold the **LEARN** button and keep it held down, it will now flash red.
2. Touch the knob or button you wish to clear.
3. The window will display the prompt CLEAR? in red, touch again to confirm your choice.

Note: if you make a mistake, you can always re-learn a control.

D. Working with Instrument/Drum and Audio Effects Racks and Macros

Ableton Live instrument and audio effect racks contain various devices/plugins bundled into one device. Multiple parameters within these devices/plugins can be controlled by a single macro with up to 16 controls. Roto-Control is a great way to control these macros.

Roto-Control will instantly map macro controls (up to 16 knobs across 2 pages) per macro/rack to knobs and labels, taking data directly from the selected macro/rack in the active Ableton Live Set. No learning or mapping required. This works similar to MIX Mode where all data is taken from Ableton Live.

Macros are considered a 'device' in Ableton Live, whereby it can control various device/plugins parameters within a rack. Ableton Live comes with several preset racks that have predetermined macros, and you can also create your own rack/macro by 'grouping' plugins on a track.

Note: It is recommended to label racks you create with a unique name. Please see Ableton Live's manual for more details.

Macros are displayed in light blue color on Roto-Control displays. Renaming macro labels is done on the rack/macro in the active Ableton Live Set and reflected immediately on Roto-Control. Macro mappings are not stored on Roto-Control and does not impact its memory usage.

Note: at the time of publishing, the Roto-Setup App cannot customize macro labels or colors, although we are developing the ability to customize macros in a future firmware update.

Roto-Control will also recognize multiple macros within a single track. For example: there might be an instrument rack and an effects rack in the same channel with different macros.

Additionally, when working with instrument/effects racks/macros, the individual device/plugins within a rack that have been mapped to Roto-Control will also appear instantly when recalled as per usual (as previously described in this manual). Macro controls are considered another device in the instrument/effect rack.

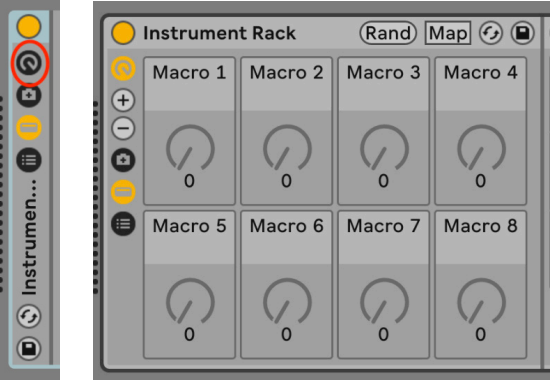
Working with Automatic Macro Mapping

Automatic mapping of rack/macros relates to .adg files (Ableton device group), instrument/effects rack with macros. It is not an automatic mapping of all plugins and parameters.

There are 2 ways to turn any plugin/device into a rack/macro:

1. Create an empty rack and drop plugins into it.
2. Within a track, select the plugin(s) and 'group' them (command + G).

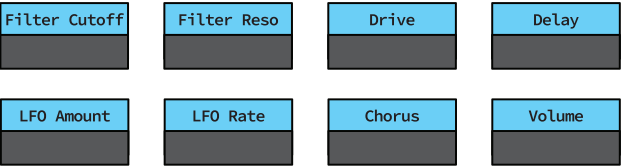
This will create a macro that can be mapped internally to plugins within that group (rack) and those macro controls will be automatically mapped to Roto-Control's knobs. Creating a new Macro will default labels to Macro 1-16 in Ableton Live and these will be greyed out and not appear on Roto-Control displays until you have mapped macro controls to parameters within the rack of plugin(s).



Click HIDE/SHOW MACRO CONTROLS. Unmapped macro controls shown above.



Example of a mapped Macro. These labels will appear automatically on Roto-Control.



MIDI Mode

Control any MIDI compatible hardware and software: synths, DAWs, lighting and more in MIDI Mode. Motion Recorder brings motorized automation to external gear. Record and automate MIDI parameters via the Motion Recorder. MIDI Mode features the same flexible learning behavior of PLUGIN Mode, although it can also work like a tradition MIDI controllers. Learn up to 64 MIDI parameters per setup and store up to 64 Setups on Roto-Control for easy recall. MIDI Mode can operate in stand-alone mode without the need of a computer.

Mapping and Learning MIDI Parameters to Roto-Control

Similar to PLUGIN Mode, MIDI Mode has a highly flexible approach to learning MIDI parameters, where you choose the parameters you want to control from your external device and where they reside on Roto-Control.

There are several ways of mapping MIDI parameters to Roto-Control.

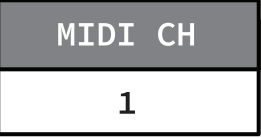
- A. Entering MIDI values directly on the Roto-Control to each knob and button.
- B. If your external device outputs CC values, Roto-Control can learn the MIDI channel and CC value via the external device.
- C. Enter MIDI values to each knob and button via the Roto-Setup App.

A. Entering MIDI Values Directly on the Roto-Control

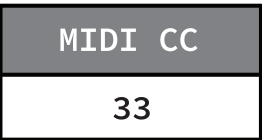
- 1. Press **LEARN** and select the knob or button want to map, using the arrow button to navigate pages 1-4. Windows will display a number of options. The LEARN button will flash and the MENU window will display what knob or button you have selected.



- 2. Enter the MIDI channel, turning the knob with the display 'MIDI CH'.



- 3. Enter the MIDI CC value, turning the knob with the display 'MIDI CC'



- 4. Optional: set minimum and maximum values via the MIN VALUE and MAX VALUE knobs. Set the color of the display via the COLOR knob, 13 colors available.
- 5. Press **LEARN** to confirm and exit.

All assigned controls are automatically saved in the current selected Setup. Change the MIDI Setup by pressing **SEL** and choose another Setup.

The default label will display the MIDI channel and CC value as '**CH:01/CC:33**', depending on the Channel and CC selected .

Further customization of controls can be done in the Roto-Setup App (please see page 17). Roto-Setup App can customize labels, colors, haptics and resolution.

B. Entering MIDI Values via External Gear

Please ensure the device you want to learn to Roto-Control can output MIDI CC, and this option has been enabled on the external gear before you commence.

- 1. Connect your external gear for 2-way communication either via USB-C connection, or serial MIDI OUT of Roto-Control to MIDI IN of external device and MIDI IN of Roto-Control to MIDI IN of external device.
- 2. Press **LEARN** on the Roto-Control and select the knob or button want to assign, using the arrow button to navigate pages 1-4. The LEARN button will flash and the MENU window will display what knob or button you have selected.
- 3. On the external device move or press the individual parameter you want to control. Roto-Control's display will immediately display the MIDI channel and MIDI CC.
- 4. Optional: set minimum and maximum values via the MIN VALUE and MAX VALUE knobs. Set the color of the display via the COLOR knob, 13 colors available.
- 5. Press **LEARN** to confirm and exit.

The default label will display the MIDI channel and CC value as '**CH:01/CC:33**', depending on the Channel and CC selected .

Further customization of controls can be done in the Roto-Setup App (see page 17). Roto-Setup App can customize labels, colors, haptics and resolution.

C. Map MIDI Values via the Roto-Setup App.

Please see page 17 for the Roto-Setup App.

Clearing a MIDI mapped assignment

- 1. Press **LEARN** on the Roto-Control and select the knob or button want to clear, using the arrow button to navigate pages 1-4. The LEARN button will flash and the MENU window will display what knob or button you have selected.
- 2. Pressing **CLEAR** will immediately clear the assigned MIDI values to the selected knob or button.
- 3. Press **LEARN** to exit.

Note: MIDI assignments can also be cleared via the Roto-Setup App.

Learning from Roto-Control, using it as a traditional MIDI Controller

Roto-Control operates differently to other MIDI controllers. Knobs and buttons on Roto-Control are not pre-populated with MIDI channel or CC numbers. Roto-Control learns parameters to its controls in an intuitive way, as described previously. For some DAWs and software (except for Ableton Live), you will nfirst need to assign MIDI values to the knobs and buttons on the Roto-Control in order to use it as a traditional MIDI controller.

First select a new MIDI Setup on Roto-Control, all the displays will be blank - indicating no MIDI values have been mapped.

There are two ways to create a new MIDI Setup for your chosen software or hardware:

- 1. Download MIDI Setup templates from melbourneinstruments.com/roto-templates Choose from for various software and hardware templates. These can be imported into MIDI Mode via the Roto-Setup App.



- 2 . If your software or hardware is not listed you will need to assign values to knobs and buttons manually, please follow the steps on 'Entering MIDI Values Directly on the Roto-Control', or you can enter MIDI values via the Roto-Setup App (see page 19).

Important: take note of the MIDI Channel you are mapping to Roto-Control knobs and buttons ensuring it correlates to the DAW parameters you are trying to control.

MIDI Setups

Press **SEL** to access up to 64 MIDI Setups.

MIDI Setups can be renamed and imported/exported via the Roto-Setup App, please see page 19.

Motion Recorder

The Motion Recorder brings Melbourne Instruments motorized knob technology to MIDI compatible gear. It is a fun and creative way to automate mapped MIDI parameters on the Roto-Control.

Motion Recording can automate the first 1-8 knobs on Roto-Control. Only MIDI Setups 1-16 can save recorded motion.

Motion Recorder Settings

When in MIDI Mode, press **FUNC** to enter the Motion Recorder settings.



Synchronization: choose internal **INT CLK** or external MIDI clock **EXT CLK**. Press the key adjacent to select. The selected clock will be display with an orange label as shown above (internal clock selected).

Set the BPM for the INT CLK, from a minimum of 20BPM to a maximum of 240 BPM.

Motion Recorder length: choose 16, 32, 48 or 64 steps. 1 step = 1/4 note.

Press **FUNC** again to confirm and exit.

Motion Recorder Transport: Playback, Record and Playback Direction Modes

Press the transport button to enter the Motion Recorder. Button windows will display transport functions. Motion Recorder was developed as creative tool, a fun and quick way to automate parameters on external gear.

Transport control in MIDI Mode is MIDI clock with play, pause and stop. You can use the internal clock or synchronize Roto-Control to an external MIDI clock.

Note: transport control is a universal MIDI clock that can be used with any MIDI compatible hardware or software that has a sequencer. This is different to MIX and PLUGIN Modes and not specific to controlling Ableton Live.



Pictured above are the first four windows of Motion Recorder.

PLAY: Press PLAY to start playback (when INT CLK selected), pressing PLAY again to pause playback. When EXT CLK is selected, playback will start when Roto-Control receives MIDI clock. Transport button will blink blue to indicate playback. During playback you can press the transport button to exit the Motion Recorder transport controls and further navigate Roto-Control as per usual, to gain access to more controls. Playback will continue and the transport button will blink blue to indicate it is playing.

When automation plays back and you can see the knobs move, don't be afraid to grab them and take-over control, soon as you let go of the knob, it will go back to the recorded automation!

Note: You can change the Motion Recorder settings during playback. MODE, LEARN and SEL are not available during playback. Stop playback to enter MODE, LEARN or SEL.

STOP: We think you know what this does!

RECORD: Pressing RECORD (when INT CLK is selected) - the Motion Recorder will commence recording of knobs 1-8. The transport button will blink red to indicate recording and change to blue when the recording length has been reached. If EXT CLK is selected, recording will start when Roto-Control receives MIDI clock.

Note: need a metronome for Motion Recording? Try connecting your Roto-Control to a drum machine or an external sequencer.

ERASE: pressing ERASE will bring the option to erase automation on knobs 1-8. Knob displays will be colored red. Touch any knob to immediately erase the automation on that knob, the display color will change from red to orange to indicate you have erased the automation for that knob. You can erase just one or all knob automation when in ERASE Mode. Press the ERASE button to exit.

Note: Automation is saved automatically to the current MIDI Setup when the Motion Recorder has stopped playback. Therefore, you can continuously record and erase until you are happy with your performance!

Playback Modes:

FWD forward, this is the default playback. Automation can only be recorded in FWD mode.

BWD backwards, opposite to how you recorded the automation.

RAND randomized playback, crazy, wild and creative!

PING PONG playback will go forwards, then backwards, and continue to repeat.



Roto-Setup App

The Roto-Setup App will keep your Roto-Control up to date, provide customization of controls and import and export setups in MIX and PLUGIN Modes. The Roto-Setup window will reflect the current selected page and controls when Roto-Control is connected. Changes made on the Roto-Setup App will be reflected immediately on the Roto-Control.

Pictured above Roto-Setup App showing an active connection to Roto-Control in MIDI mode, with Button 1 selected and ready to customize.

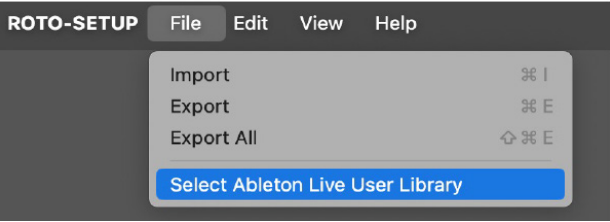
Updating Firmware

Installing the latest version of the Roto-Setup App includes the latest firmware for your Roto-Control. Please keep your Roto-Control up to date and we highly recommend backing up your Roto-Control via 'EXPORT ALL' on the ROTO-SETUP App before updating your firmware. How to update your Roto-Control:

1. Download the latest Roto-Setup App [here].
2. Install the App on your computer.
3. Open the App on your computer and connect the Roto-Control to your computer via the USB-C cable through the 'USB' port on Roto-Control.
4. You will be prompted to update your Roto-Control, confirm to continue.

5. Your Roto-Control's displays will go blank; this indicates the unit is being updated - do not disconnect! Roto-Control will restart automatically.

Note: the first time Roto-Setup App is installed it will search for your Ableton Live User Library. If you have moved your Ableton Live User Library from the default location, you will be promoted to locate it or continue using Roto-Control without Ableton Live. You can relocate it anytime in the Roto-Setup App by going to menu: File > Select Ableton Live User Library.



Customizing Roto-Control with the Roto-Setup App

The Roto-Setup App can customize knobs and buttons in MIDI and PLUGIN Modes. MIX Mode and Macros (in PLUGIN Mode) are configured in the active Ableton Live Set and cannot be customized with the Roto-Setup App.

To customize controls, select MIDI or PLUGIN Mode on the Roto-Control and the Roto-Setup App will display the selected Mode and page from Roto-Control. The MENU window will display the current selected Mode.

There are different options for each Mode when customizing and configuring controls in MIDI and rameter from Ableton Live with the display color defaulting to dark blue for the assigned control. To further customize a control, click on the desired knob or button. Take care when customizing controls and values in PLUGIN Mode as the behavior of devices/plugins will vary. Roto-Control will learn and map device/plugin parameter values as intended. If you make and error or wish to re-learn a device/plugin parameter, clear the assigned control as described in Clearing Mapped/Learnt Parameters (see page 14).

Note: Macros knobs cannot be customized with the Roto-Setup App. Macro labels can be renamed in the active Ableton Live Set.

Customizing a Knob in PLUGIN Mode

DISPLAY NAME: click and type to change display name. Roto-Control will display the name according to the learnt device/plugin parameter.

COLOR: click to change the display color from dark blue. Roto-Setup's full color palette will pop up where you can choose a color from.

TYPE: KNOB or STEP (stepped knob/switch with haptic feel) Roto-Control will set this according to the learnt device/plugin parameter.

Note: take care when changing the TYPE from the assigned parameter as results will vary.

INDENT 1 & 2: check box to add a up to 2 indents to the knob. This is only available when TYPE: KNOB is selected.

STEPS: when TYPE: STEP is selected, click to add up to 24 steps, effectively creating a stepped knob/switch.

The first 16 steps can be named, whereby the window will display a unique name for each step when selected. To label a STEP, click the field next to each STEP and enter your desired text. Click away from the field to confirm.

Note: Plugin mode only, (not MIDI) supports up to 24 steps – but if you select more than 16 steps you can't enter the names for steps beyond 16.

MIN VALUE: Set minimum.

MAX VALUE: Set maximum.

Note: take care when changing the MIN and MAX value, Roto-Control will set the default values according to the learnt device/plugin parameter.

Customizing a Button in PLUGIN Mode

DISPLAY NAME: click and type to change display name. Roto-Control will display the name according to the learnt device/plugin parameter.

COLOR: click to change the display color from dark blue. Roto-Setup's full color palette will pop up where you can choose a color from.

ON COLOR: select the RGB color from the Roto-Setup color palette when the button is pressed. Default color is white.

OFF COLOR: selects RGB color from Roto-Setup's full color palette when the button is pressed. Default color is black (no color).

TYPE: PUSH or TOGGLE. Roto-Control will set the default according to the learnt device/plugin parameter.

When TOGGLE is selected, click to add up to 16 steps, effectively creating a stepped switch. Each STEP can be named, whereby the window will display a unique name for each step when selected. To label a STEP, click the field next to each STEP and enter your desired text. Click away from the field to confirm.

You will need to adjust ON and OFF values accordingly in order for each STEP name to display correctly on Roto-Control.

OFF VALUE: click to change value.

ON VALUE: click to change value.

Note: take care when changing the OFF and ON values, Roto-Control will set the default values according to the learnt device/plugin parameter.

Importing and Exporting PLUGIN Setups

The Roto-Setup can import and export PLUGIN Setups as a way of sharing and saving mapped Ableton Live and third-party device/plugins. The PLUGIN Setups are saved as .json files.

Exporting a PLUGIN Setup

1. Select PLUGIN Mode on the Roto-Control,
2. Select the device/plugin you wish to export.
3. In the Roto-Setup App menu select File > Export. You be prompted to save the PLUGIN Setup as a .json file you want to export.

Note: we highly recommend saving your PLUGIN Setups in one location for easy exporting and importing, as PLUGIN and MIDI Setups share the same file extension .json.

Importing a PLUGIN Setup

1. Select PLUGIN Mode on the Roto-Control.
2. In the Roto-Setup App menu select File > Import. Choose the PLUGIN Setup, the .json file you want to import.
3. The PLUGIN Setup will be flashed to the Roto-Control. If the same PLUGIN exists on the Roto-Control, you will be prompted that the file you wish to import will overwrite the existing PLUGIN on your Roto-Control.

How MIDI Mode works with the Roto-Setup App

In MIDI Mode, the Roto-Setup App can customize controls including labels, colors and haptics. This is where you can import, export and rename MIDI Setups.

Mapping MIDI values to knobs and buttons can also be done with the Roto-Setup App. All changes made on the Roto-Setup App are reflected and updated immediately to the connected Roto-Control. These changes are also saved automatically to the current MIDI Setup on Roto-Control.

Mapping and Customizing MIDI Parameters with the Roto-Setup App

MIDI channel and CC values can be mapped to Roto-Control's knobs and buttons directly via Roto-Setup.

Here you can also customize controls if you have previously mapped them as described in the MIDI Mode section 'Entering MIDI Values via External Gear' (see page 17). Map and customize MIDI parameters as follows:

1. Connect Roto-Control to your computer via USB and open the Roto-Setup App.
2. Select MIDI Mode on the Roto-Control.
3. Choose a MIDI Setup by pressing SEL. Note: the default MIDI Setup will be the last one selected, if this

is the first time it will be SETUP 01. There are up to 64 MIDI Setups saved on the Roto-Control.

4. Click the knob or button you wish to map or customize on the Roto-Setup App and enter/select values as follows:

Mapping and Customizing Knobs in MIDI Mode

DISPLAY NAME: click and enter text to change display name. Default name will be KNOB #.

COLOR: click to change the display color. Roto-Setup's full color palette will pop up where you can choose a color from. Default color is orange.

MIDI CH: click to enter MIDI channel.

MODE: choose CC or NRPN.

MIDI CC: click to enter CC number.

RESOLUTION: choose COARSE or FINE.

Note: when FINE is selected in MODE: CC, you can enter the MIDI CC MSB between 0-31. The MIDI CC LSB will be adjusted automatically.

When FINE is selected in MODE: NRPN, you can enter the NRPN ADDR.

TYPE: KNOB or STEP

MIN VALUE: click to change value, default is 0

MAX VALUE: click to change value. Default is 127 in MODE: CC, or MODE: NRPN RESOLUTION: FINE is 16383.

You may need to adjust the MIN and MAX values in order for Roto-Control to send the correct value to the device you are controlling. For example, ON/OFF values vary across devices, where OFF is 0, and ON may range from 1 to 127/16383.

INDENT 1 & 2: check box to add a up to 2 indents to the knob. This is only available when TYPE: KNOB is selected.

STEPS: when TYPE: STEP is selected, click to add up to 16 steps, effectively creating a stepped knob/switch. Each individual STEP can be named, whereby the knob will display the name for each step when selected. Click in the field next to STEP to label a step.

Mapping and Customizing Buttons in MIDI Mode

DISPLAY NAME: click and enter text to change display name. Default name will be BUTTON #.

COLOR: click to change the display color. Roto-Setup's full color palette will pop up where you can choose a color from. Default color is orange.

ON COLOR: this selects the RGB color from Roto-Setup's full color palette when the button is pressed. Default color is white.

OFF COLOR: this selects RGB color from Roto-Setup's full color palette when the button is pressed. Default color is black (no color).

Note: results will vary across different MIDI devices, whereby some devices will swap ON/OFF orientation.

MIDI CH: click to enter MIDI channel.

MIDI CC: click to enter CC

Note: some CC numbers are not available as these are reserved for Roto-Control operation.

TYPE: PUSH or TOGGLE. When TOGGLE is selected, click to add up to 16 steps, effectively creating a stepped switch. Each STEP can be named, whereby the window will display a unique name for each step when selected. To label a STEP, click the field next to each STEP and enter your desired text. Click away from the field to confirm.

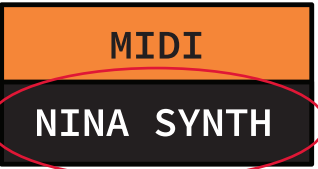
You will need to adjust ON and OFF values accordingly in order for each STEP name to display correctly on Roto-Control.

OFF VALUE: click to change value.

ON VALUE: click to change value.

Changing MIDI Setup name

Each MIDI Setup can have a unique name. The default names are SETUP 01 through SETUP 64. To change the name of a MIDI SETUP, click the MENU window display and a pop-up window will appear to enter a new MIDI Setup name.



Exporting a MIDI Setup

- 1. Select MIDI Mode on the Roto-Control.
- 2. Choose the MIDI Setup you wish to export. The current active MIDI Setup on Roto-Control will be selected unless you choose a different MIDI Setup by pressing SEL. The MENU window will display the current MIDI Setup.

- 3. In the Roto-Setup App menu select File > Export. You be prompted to save the MIDI Setup as a .json file you want to export.

Note: we highly recommend saving your MIDI Setups in one location for easy exporting and importing, as PLUGIN and MIDI Setups share the same file extension .json.

Importing a MIDI Setup

- 1. Select MIDI Mode on the Roto-Control.
- 2. Select the MIDI Setup you want to import to on the Roto-Control.
- 3. In the Roto-Setup App menu select File > Import. Choose the MIDI Setup as a .json file you want to import.
- 4. The MIDI Setup will be flashed to the Roto-Control. You will be prompted that the file you wish to import will overwrite the existing SETUP on your Roto-Control.

Export All – Backing Up Roto-Control

All MIDI and PLUGIN Setups can be saved to your computer. Each MIDI and PLUGIN Setup will be saved individually when using EXPORT ALL.

- 1. In the Roto-Setup App menu select **File > Export All**.
- 2. You be prompted where to save your Setups.
- 3. Roto-Setup App will create a folder named ROTO-CONTROL YEAR DATE TIME, containing 2 folders named MIDI and PLUGIN

Note: to restore your Roto-Control from the back-up, import the .json files individually from the back-up folder.



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