CHOMPI GUIDEBOOK V1.1

Hi I'm CHOMPI,
a quirky chromatic sampler & magical Tape–Music instrument, made for self expression through sound design!
Feel free to explore my many functions…
there's no wrong way to CHOMPI!

Welcome to CHOMPI Club! In this guide we're going to help you get started with the CHOMPI Sampler. We'll walk through what it is, what comes in the box, and give you an overview of the workflow so you can start having fun right away! The content is structured in an order that we feel might be beneficial for someone just starting out. That being said, feel free to bounce around and take things at your own pace… most importantly remember to have fun ☺

PREFACE: Inspired By VIDEO GAMES

Before we dive in, we thought it might be helpful to share a bit of our inspiration for how CHOMPI's workflow is designed.

We tend to approach learning CHOMPI in the same way that we might go about learning to play a new Video Game. Each section acts a bit like a new level in the game, progressively getting more and more challenging while you gain experience and learn techniques along the way.

- ○ If we think about how a video game works… you typically don't just jump straight into fighting the main boss right away… Instead, you first need to practice and build your skills one level at a time. This is how CHOMPI works too!

    LEARN THE BASIC CONTROLS

    - ■ Figure out what the buttons do… "How does that thing work?" "What does this button do?" "I wonder what would happen if…?" Etc…

EXPLORE THE MECHANICS

- ■ This where you can explore the basic mechanics of the game, and practice using the controls in a safe and low risk environment. This exploration stage is crucial to the learning process and is incredibly effective when learning a new workflow.

ENTER GAMEPLAY

- ○ Once you've gotten the hang of the basics, you're ready to enter the game. Each level will teach you a new mechanic or skill that you can build on. The beauty of learning with levels, is they act like little checkpoints that you can keep returning back to. This gives you the freedom to test out new ideas, make mistakes, and explore new strategies, all with a "safety net" in place… allowing you to restart the level at any time in a place you are familiar with.

START HAVING FUN!

- ○ Eventually you get more comfortable with how the controls and parameters of the game work, and then the real fun begins! You can start to forget about the button combos and the technical pieces, as they become second nature… Allowing you to just get swept up in the adventure!

BUILT-IN SAFETY NET

- ○ With this experience in mind, we've crafted CHOMPI's workflow with a built-in "safety net", so if you get lost and need to start fresh, simply power cycle the device and you'll reboot into CHOMPI's default state. We call this **CHOMPI Mode**. It's essentially a safe checkpoint that you can always return to each time you turn on the instrument.
- ○ **CHOMPI Mode** boots up with a default Sine Wave Sample, and all of the core parameters (aka knobs) reset to their default position. So if you find yourself stuck, or lost in the woods, just remember: you can simply power off and on again to return back to CHOMPI mode.
- ○ With that said, if you've made something you like, you can also save it before you power off. But we'll get to that in a little bit…

LEARN AT YOUR OWN PACE

- ○ We encourage you to go about learning CHOMPI's workflow with this framework in mind. Take your time, there's no need to rush… pause or re-read each section until you feel comfortable to move on… But of course, if you just want to dive in and explore as you go, that's great too! **There's no wrong way to CHOMPI ;)**

UNBOXING & SETUP

So let's get started!

- ○ Every CHOMPI comes in a super fun custom box! It features basic product info and lots of little CHOMPI world scenes to explore, plus a diagram on the bottom.
    - ■ Inside the box you'll find:
        - ● **CHOMPI** safely cradled in custom foam
        - ● **USB-C cable** (type A to type C connectors)
        - ● **Quickstart Guide** that highlights the basic controls

    - ■ We've designed the box to be relatively sturdy, so feel free to reuse it as a safe place to store your CHOMPI. Then when you're finished with the box, you can easily remove or reuse the foam inside to place inside other cases or bags. (Please recycle the cardboard)
- ○ **The Quickstart Guide** will be the map for your CHOMPI quest, so keep it handy.
    - ■ The main spread features a diagram of the primary functions and key engines to explore. Think of this like the first levels of the game.
    - ■ When you flip it over, the diagram highlights the next levels of shift menu functionality, how to save presets, and CHOMPI's general hardware overview.

BASIC OVERVIEW

- ○ CHOMPI has a unique sampling engine with a built-in microphone to capture sounds around you, inputs to bring sounds in from other devices, and an SD card to manage samples to and from your computer.
    - ■ You can change, manipulate and craft sounds to your liking using parameters in the Sound Design Engine.
    - ■ CHOMPI's unique clockless workflow creates a dynamic and flexible way to compose musical sketches with the Looper Engine.
    - ■ And CHOMPI is designed to play well with others with multiple points of connectivity, including both USB-C and 3.5mm MIDI functionality.

LEVEL 00: HARDWARE

HARDWARE

- Let's start with the hardware setup. If you look at the back panel of CHOMPI that the handle attaches to, you will see multiple ports and the power switch:
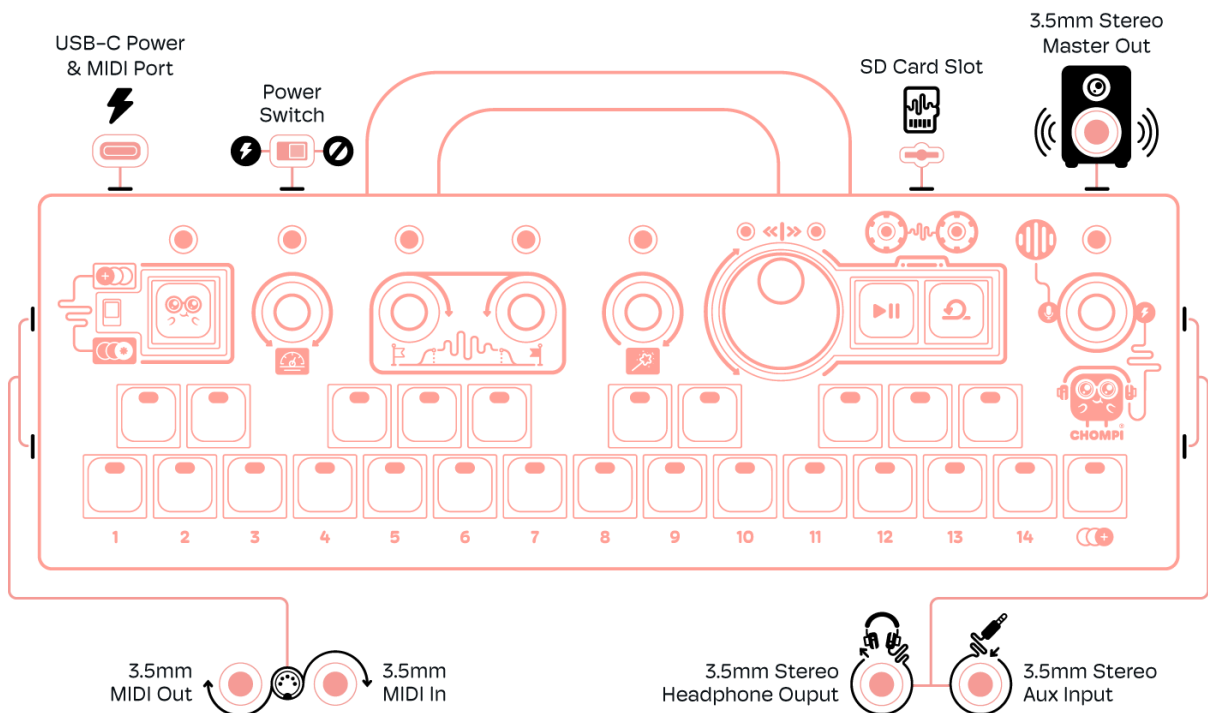

USB-C / POWER	
	This is the USB-C power port, where you can connect your included USB-C cable to power your CHOMPI and recharge the internal battery. There's a little red indicator light that will glow around the outside of the USB-C port to confirm that the battery is charging. When this red indicator light turns off CHOMPI's battery is fully charged.

- Generally speaking, CHOMPI's internal battery should be fine to charge with most standard USB power sources that you would normally charge your phone or tablet with. That being said, we recommend using a dedicated USB power brick for optimal performance.
  - Minimum power brick spec for charging battery while unit is turned off = **5v @ 0.5A**
  - Recommended USB Power Brick for full time operation and charging at the same time = **5v @ 2A (or higher)**
- Since CHOMPI is also a class compliant MIDI Device, this port can also be used for MIDI In & Out with your computer or mobile device. *(See Midi section for more info)*

POWER SWITCH
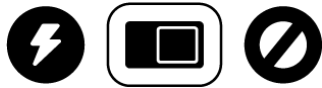
	Next up, we have the power switch!

- Flip the switch in the direction of the lightning bolt icon to turn CHOMPI **ON** and and wait for the bootup "rainbow" animation on the LEDs.
- The other switch position towards the "stop" icon will power CHOMPI **OFF**.

SD CARD

	CHOMPI comes pre-loaded with a handful of samples from the factory, but you can also import & export samples to and from your computer with the included Micro SD card.

→ Pro Tip: Use the end of a 3.5mm cable to gently pop the card in & out.
→ When importing samples, be sure that they are formatted correctly - 16bit 48khz Stereo .WAV Files. *(See Advanced Techniques section a the end of this guide for more info)*

3.5mm STEREO HEADPHONE OUT

	If you are planning to use CHOMPI by itself, **we recommend plugging in a set of headphones to the "Headphone" jack** on the right side of the unit. This output contains the master audio signal that is created by CHOMPI's engines, as well as the input monitor signal when you flip the mode switch up to sample new sounds.

3.5MM STEREO MASTER OUT:

	If you are using CHOMPI with a pair of speakers (and/or mixer), **we recommend using a 3.5mm stereo cable plugged into this "Master Output" jack.** This output contains only the master signal (not the input monitor) so that feedback can be avoided when using the microphone for sampling.

3.5MM STEREO AUX INPUT:

	Next to that we have the **Stereo Auxiliary Input where you can bring sounds into CHOMPI from another source**... like your favorite game console for example ;) General rule of thumb is that anything with a headphone output should work great with this stereo input.

3.5mm MIDI I/O

	If we rotate CHOMPI to the other side, you will see the **3.5mm MIDI (type-A) Out and In**. With these ports, you can use CHOMPI as both a MIDI Keyboard (MIDI out) as well as play and control CHOMPI's primary functions with other MIDI compatible gear. (See Midi section for more info)

KNOBS / ENCODERS

	PRESS BUTTON ENCODERS: to cycle through pages and access additional features. LED Indicators will display a range of different colors to communicate knob position and/or additional secondary functions.

HARDWARE ACCESSORIES

- ○ Now we can't forget the accessories! CHOMPI's enclosure panel, handle, and keycaps are all designed to be customizable! We will be dropping new colorways and panel kits in the future, so you can give your CHOMPI a custom fit to match your vibes.
    - ■ The **ENCLOSURE PANELS** are designed in a modular fashion and are fully customizable. CHOMPI comes stocked with the CHOMPI World graphic on the front panel, and a simplified Quickstart diagram on the bottom panel. But for all you minimalists out there, these 2 panels are reversible for a more streamlined look. All enclosure panels are secured with M3 screws (2mm Allen wrench required), except for the 4 rubber feet/screws which can be twisted off by hand.
    - ■ The **KEYCAPS** are also customizable, and sit on a hot-swappable mechanical keyboard bed. We've chosen our favorite high quality switches for CHOMPI, but feel free to swap out for your faves. Every classic CHOMPI comes with our Original BOBO Keycap set. We also have our Classic Marshmallow Keycap sets available for purchase with new colors coming soon. Or you can put your own ones on! We highly recommend using caps with windows or transparency to utilize the LED menu functions. (see Tech Specs section for compatibility info)
    - ■ Even the **KNOBS** and **Handle** can be carefully removed and will have more color options in the future too.

LEVEL 01: CHOMPI MODE

Now that you understand the hardware basics, let's turn this puppy on!

IMPORTANT NOTE: When it first arrives, you will need to connect your CHOMPI to a USB power source and start charging the built-in rechargeable battery before it will power on. Additionally, it might be a good idea on this initial charge to keep it plugged in for a couple hours to get a nice full first charge cycle. But feel free to play and charge CHOMPI at the same time ;)

- ○ **POWER UP**
  - ■ To turn on, flip the power switch toward the power bolt icon, and enjoy the lightshow… oooooooohhh ahhhhhh!!!
    - ● When it first boots up, CHOMPI will inspect the micro SD card for new files… then once you see the "Rainbow Wave" animation on the LEDs, you should be ready to CHOMP ;)
  - ■ Like we mentioned earlier, CHOMPI has a built-in safety net to help ensure you always have a good starting point to return to, each time you power up the device.
    - ● **CHOMPI boots up with a built-in soft Sine Wave sample** that will always be there, but can also easily be replaced if you want. To hear it, simply press any of the keys on the black and white piano style keyboard.

Let's begin with a basic **OVERVIEW** of what each of these sections and knobs are called, and then we will dive into how each engine works:

VOLUME ENGINE

- ○ One of the most important knobs right off the bat is the **VOLUME ENGINE** aka **GAIN CONTROL KNOB.**
  - ■ This controls the Volume in your **headphones** and **master output.**
    - ● We'll come back to this one in a minute, but at least now you know where to adjust the volume while you're learning

SAMPLER ENGINE
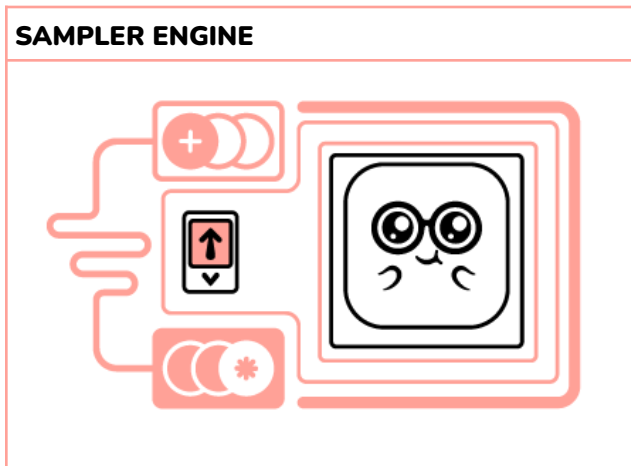
- ○ **MODE SELECT SWITCH** - It toggles between the 2 core modes of operation:
    - ■ **CHOMPI Mode** - activates when the MODE switch is in the UP ⇧ position.
        - ● If nothing is plugged into the aux input, you will hear the microphone turn on, and actively monitor the sounds around you (through the headphone output only). This is the mode where you can record new sound samples.
        - ● To record **your first sample**, with the MODE switch in the UP position, **press the CHOMPI key to start recording**. Recording stops once you release the CHOMPI key, and your sample is immediately available to play on the keyboard below.
    - ■ **JAMMI Mode** - activates when the Mode Switch is in the DOWN ⇩ position.
        - ● The input monitor turns off so you can make adjustments to the encoder knobs and edit your recorded samples. This mode also opens up access to shift functions and preset recall by converting the CHOMPI Key to a Shift Key.
- ○ **CHOMPI KEY**:
    - ■ **RECORD Key** when MODE switch us UP ⇧
    - ■ **SHIFT Key** when the MODE switch is DOWN ⇩
        - ● For those that may not be familiar with the term "Shift Key"... it's a key that when held down, opens up secondary functions across the instrument. The shift key on CHOMPI functions very similarly to the SHIFT Key on a typing keyboard that provides access to symbols like ?!@#$% Ect...
        - ● We'll be sure to point out any secondary "Shift" functions as we work our way through the rest of the keys and knobs on the instrument.

LEVEL 02: SOUND DESIGN ENGINE

SOUND DESIGN ENGINE
Let's move the MODE switch to the DOWN position, and you should see the LED colors light up above the 4 main knobs (AKA JAMMI Mode).

SPEED
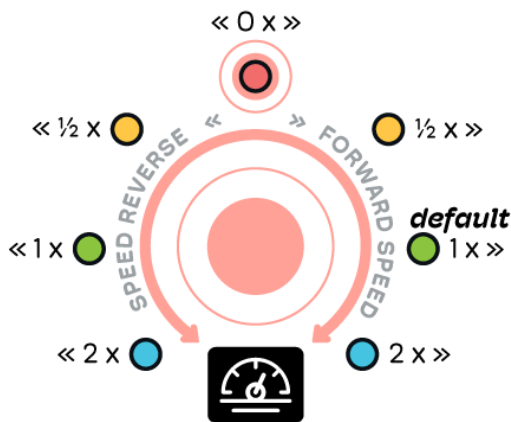
This first knob, with the speedometer icon, is the **SAMPLE PLAYBACK SPEED & DIRECTION KNOB**

- This knob adjusts how fast or slow the sample will playback on the keyboard, affecting the pitch of your sound. Turn it to the right, the sample plays faster and sounds higher. Turn it to the left, the sample plays slower and sounds lower. You can even play it in reverse!

- The color of the LED above each knob corresponds to the position of the encoder (See Diagram for color chart).
- If you want to reset back to the original speed you recorded your sample at, simply press the encoder knob down, and the sample will snap back to the recorded speed & 1x direction (indicated by a green LED)

➔ **PRO TIP**: If you hold down the CHOMPI Key while turning the Speed knob, it gives you a **shift function to jump between 5ths & Octaves** from the root pitch of your sample

ENVELOPE

Next up, we have the **SAMPLE ENVELOPE KNOBS** as shown with the race flags and sample (squiggle) icon in the middle.

- Turning these knobs controls the **sample window**. There are actually 2 pages for each knob… to toggle between the pages, press down on the encoder and the indicator LED will change color.

PAGE 1

default ⊗
Sample **Start**
Record Origin

Sample Start
Nudges Forward Until
it Reaches End Point

Sample End Nudges
Backwards Until it
Reaches Start Point

⊘ *default*
Sample **End**
Record Origin

SAMPLE START

- Page 1 of the LEFT knob (yellow LED) controls the **Start Point of the sample.** Turning this knob clockwise will nudge the point that your sample first starts playing until it reaches the minimum window size.

SAMPLE END

- Page 1 on the RIGHT knob (red LED) controls the **End Point of the sample.** Turning this knob counter-clockwise will nudge the point that your sample ends/loops until it reaches the minimum window size

PAGE 2

default ⊘ MIN
Envelope
Attack Time

MAX
Length Envelope
Attack Time

default ⊘ MIN
Envelope
Decay Time

MAX
Length Envelope
Decay Time

ATTACK / DECAY

The 2nd pages use blue and purple LEDs to adjust:

- **ATTACK Time** (how long it takes for your sample to reach full volume)
- **DECAY Time** (how long it takes for your sample to get quiet).

➜ **PRO TIP**
  ◆ On Pg 1, holding the Shift key and turning either knob will adjust both start and end points at the same time
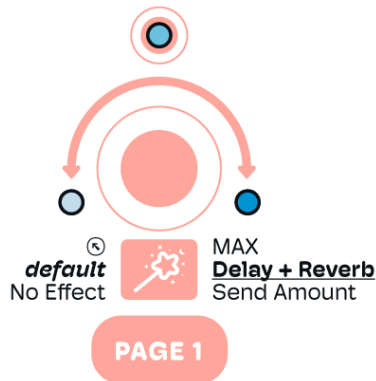 ◆ On Pg 2, holding the Shift key adjusts both the Attack and Decay values at the same time

LEVEL 03: MULTI-FX ENGINE

| MULTI-FX ENGINE |
| --- |
| Now we get to sprinkle in some magical effects using the FX KNOB indicated by the magic wand icon.

● This engine contains 3 different effects pages to explore and layer together: |

| PG 1: MAGIC WAND	

	The 1st page has the signature **Magic Wand FX** (Blue).
	
	● A stereo **Delay + Reverb** indicated by a sweeping range of intensity shown with a light to dark blue LED
	    ○ Turning the knob changes the **Effect Amount**, increasing as you turn clockwise
	    ○ Holding Shift while turning, adjusts the **Delay Time**

PG 2: TAPE	
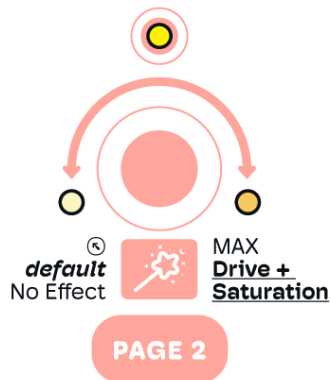
	Press the encoder knob once to toggle to the 2nd page, which features the **Tape FX** (Yellow).
	
	● This provides an increasing range of **Tape Saturation, Overdrive, and Compression**.
	    ○ Starting with no effect on the Left (light yellow) and increasing to max drive on the Right (bright red LED)
	    ○ Hold Shift while turning to adjust the **Tape Style WOW & FLUTTER amount**

| PG 3: MULTI-MODE FILTER	
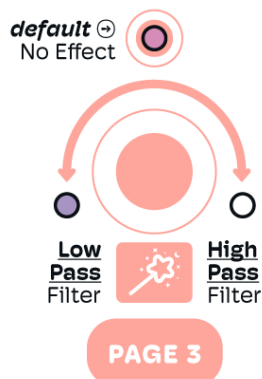
	Press once more to access the 3rd page, the **Multi-Mode Filter** (Pink).
	
	● This features a **Low Pass & High Pass Filter**
	    ○ By default this page has the knob position at NOON (or centered). To reduce the high frequencies, turn the knob counterclockwise (purple LED), or sweep the knob clockwise to reduce the low frequencies (white LED)
	    ○ Hold Shift and turn to adjust the Filter Q or Resonance Amount
	● **Pressing the knob** once more, will **return** you back to Pg 1

- **BONUS TIP:**
  - Hold the Shift key and **press down on the encoder, to reset all 3 FX parameters** back to default state


FX SIGNAL FLOW
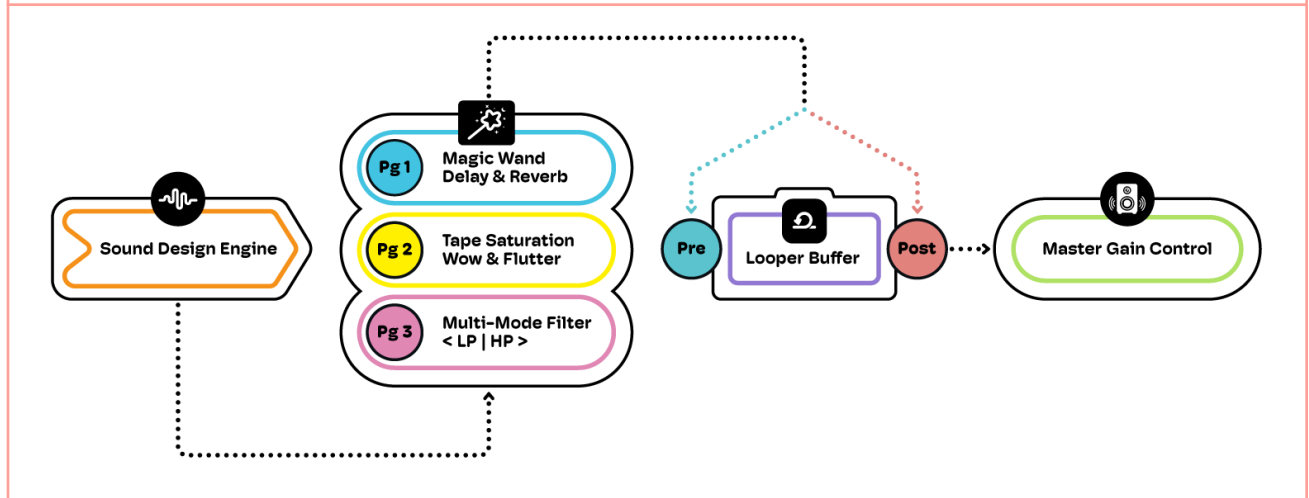
LEVEL 04: LOOPER ENGINE

The LOOPER ENGINE is where we can record and layer melodies, sounds, and textures together to create interesting musical compositions.

But before diving in, let's first talk about the basic concept of looping:

- **Sound-on-Sound Audio Recorders** (aka loop recorders) allow the user to continuously layer multiple audio recordings on top of one another, creating new combinations of sounds within a single audio file. Originally this was done using analog tape machines and cutting/splicing pieces of magnetic tape together to form a complete "tape loop". This classic technique has been one of the key inspirations for CHOMPI's architecture and workflow design. AKA: Tape Music
- **So what is TAPE MUSIC?**
  - *Tape music is an experimental form of musical composition that involves manipulating and rearranging pre-recorded sounds and musical fragments using analog or digital recording equipment. Composers often use techniques such as splicing, looping, reversing and playback speed alteration to create new and unique soundscapes.*
  - Essentially, it is a free form (clockless) method of combining multiple sounds together in order to create completely new sounds!
- **What makes CHOMPI's looper unique?**
  - Simple Controls, but Deep Functions
  - Varispeed Overdub Recording
 - Forward & Reverse Direction Swapping

- Overdub Recording Decay (Frippertronics)
- Manual Tape Scrub Control
- Copy/Swap Loops & Samples back and forth between the SAMPLE & LOOPER Engines at anytime

LOOPER CONTROLS

LOOP STATES
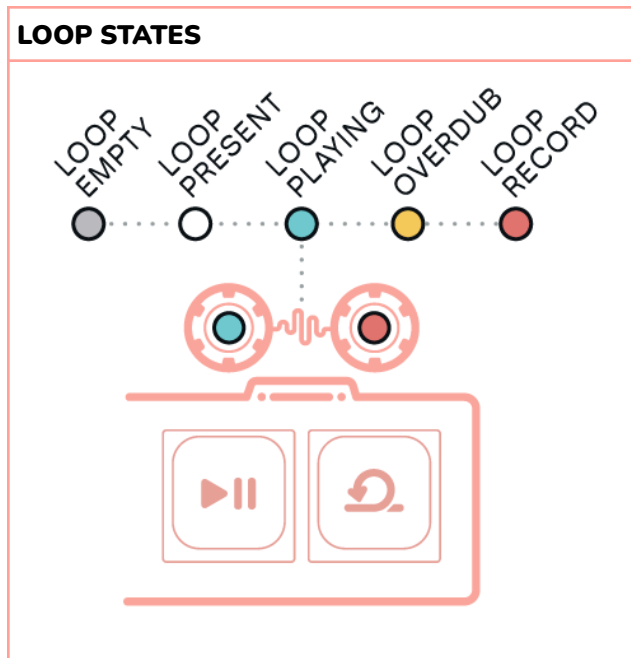
- ○ **LOOP / OVERDUB KEY:**
  - Your **1st Press**: Initiates the loop to **start recording** (red LED)
  - The **2nd Press**: Sets the **length of the loop**, and enables overdubbing (aka Layer recording) on top of the original loop. (yellow LED)
    - You will see the LEDs above the 2 keys fade between each other to show where in the loop you are hearing the playback.
  - To stop overdubbing but keep the loop playing, press the **PLAY/PAUSE** or **LOOP** key again to toggle overdubbing off / on (white LED)
  - Want to start over and **Erase** your loop? **Hold PLAY/PAUSE + LOOP** buttons for 2 seconds and the LEDs above those keys will go dark to indicate the loop has been cleared.
- ○ **PLAY / PAUSE KEY:** This key is your primary way to control the playback of the loop - pretty self explanatory right?

THE TRANSPORT KNOB
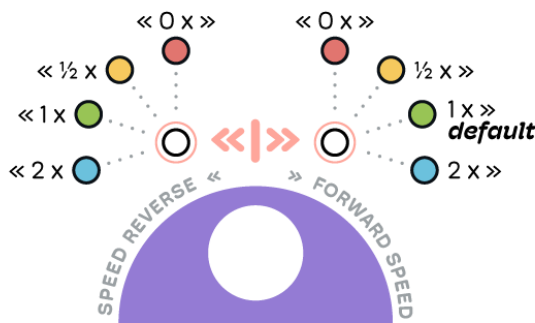
This big fun purple knob here is the **Transport Knob...** It's where things get really exciting!

- When a loop is **playing**, this knob controls the **loop playback speed and direction** (similar to how the SPEED knob works in the Sound Design Engine)

- **Spin to the right to speed up** (blue LED), **spin to the left to slow down** to a stop (red LED), and then keep spinning to the left to play the loop in reverse direction
- When the loop is **paused**, this knob acts as a **manual tape transport** – allowing you to manually control / scrub through the loop.
- While the loop is playing, **press down on the transport knob** to **reset** the loop back to the original recorded speed and direction

→ **BONUS Function**: Similar to the SPEED knob, **holding the Shift key** while spinning this transport knob activates stepped pitch control in **5ths and Octave intervals**

○ **LOOP RECORD CUE**
Set up the Looper to wait to start recording until you start playing
- While holding play/pause key, press & release the loop key to arm loop record function.
  - Looper will wait to start recording until the first note is pressed on the keyboard.

○ **OVERDUB DECAY (aka Frippertronics):**
Overdub Recording Decay allows you to fade out previously recorded material and seamlessly replace it with new material without the need to stop your loop.
- Overdub Decay is only possible when the loop is actively overdubbing (yellow LED above loop key).
- A single Shift + PLAY/PAUSE Key press will activate overdub decay with a 10% volume decrease with each pass of the loop. Further presses will continue to lower the percentage amount by intervals of 10% at a time.
- To increase the volume percentage and return back to standard loop operation use Shift + LOOP Key, until 100% volume is reached
- The Decay amount is indicated by the two white LED's above the PLAY/PAUSE and LOOP Keys.

LEVEL 05: VOLUME ENGINE

VOLUME ENGINE
Now that we understand the foundation of what the other engines do, let's return back to the VOLUME ENGINE. This section not only controls how loud the sounds are, it also provides more fine-tuned control over monitoring and routing your signals.


PG 1: OUTPUT GAIN
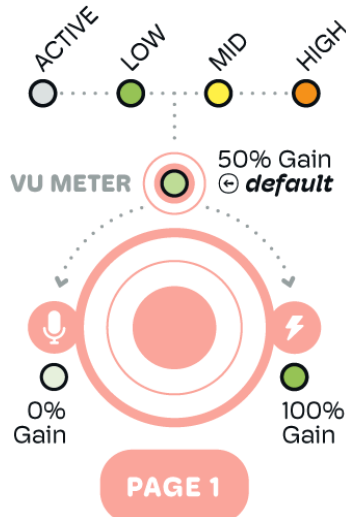
As we start with the default **Page 1**, turning the **VOLUME KNOB** will control the basic VOLUME / GAIN levels of both the **Master Line Out and the the Headphone Volume**

- **The LED above the knob functions as a VU meter.** Starting by default at 75% Gain. Turning all the way to the left turns the Gain down to 0% and all the way right up to 100%. Any **sounds or samples being run through the VOLUME ENGINE will trigger changes in the VU Meter.**
- A low grade white color indicates a basic active state, moving into green as the signal starts to become audible, then to yellow in the mid state, and finally a hot orange-red when the signal gets too hot or starts clipping.


PG 2: INPUT GAIN
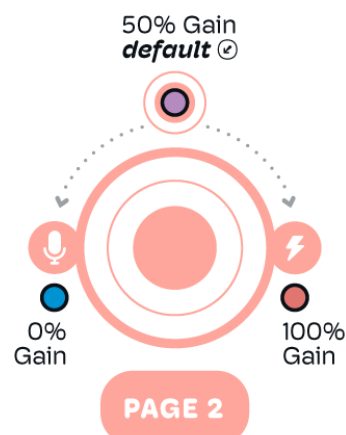
Pressing the VOLUME encoder will toggle to **Page 2** where we can control the Gain levels of the **built-in Microphone and Stereo AUX input** (when it's being used).

- By default the gain is set to 50% (pink LED)... turning the knob clockwise will increase the gain (red LED), whereas counterclockwise will reduce gain (blue LED).

BONUS: Holding the Shift key and pressing down on the encoder will toggle between 2 different ways to route the input monitor

- The default is **Position 1:** The **DRY monitor** is sent directly to the Sample Engine and the Headphone Output ONLY
- **Position 2** provides a **WET monitor** which passes the selected input through the Sample Engine, FX, Looper and to BOTH outputs
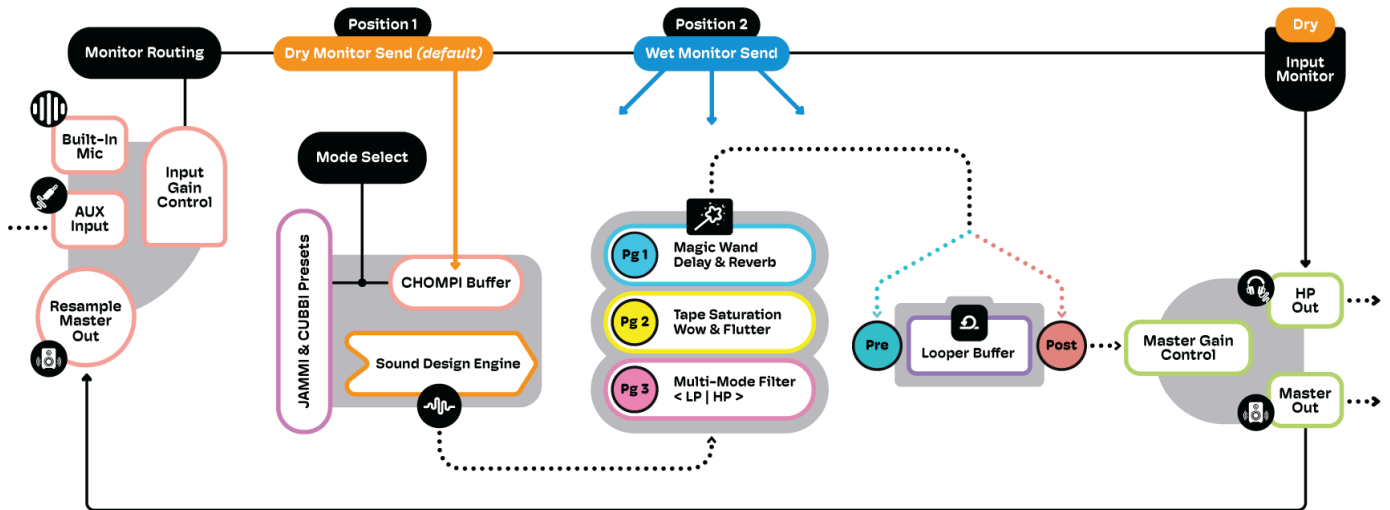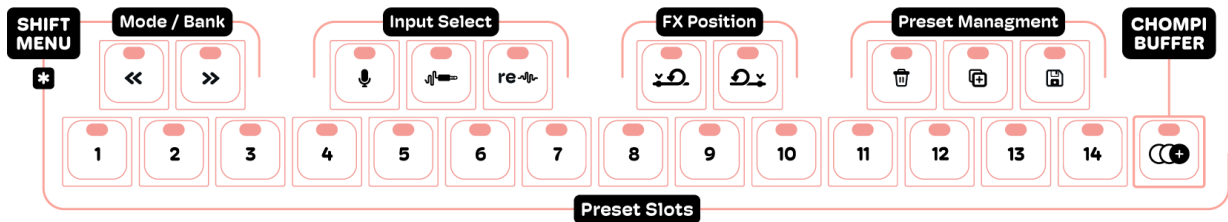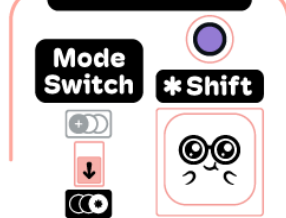
LEVEL 06: SHIFT MENU

SHIFT MENU

We've talked about how to use the CHOMPI Key in JAMMI mode to access the secondary shift functions of the knobs. And now we're going to level up with some new skills!

SHIFT MENU MAP

The SHIFT Menu
is like a hidden toolbox that lives on the **black keyboard keys.**

- The features in this secret toolbox can be accessed by putting the **MODE SELECT SWITCH in the DOWN position**, and **holding the CHOMPI key when selecting** the different menu functions.

- Make sure to **keep your Quickstart Guide handy** on this level! The backside has a legend that explains what each shift menu key does, and provides a visual indication of color codes for the LED lights. So let's dive into these different Menu Sections...

MODE / BANK SELECT
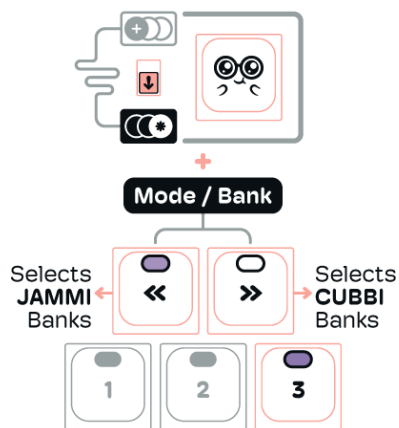
	These 2 keys let you switch between Sample MODES
	JAMMI MODE Hosts the **Chromatic Presets** on the Left
	CUBBI MODE Stores the **1-Shot Samples** on the right

Press either key to **cycle between the 3 different banks** of samples in those modes. Each bank contains **slots #1-14**, which correspond to the numbers printed below the **white keys.**

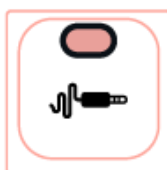- *More info on this in Level 07: Managing Presets*

INPUT SELECT

Now let's move to the next section on the right: the **Sample INPUT Select.**

- These 3 keys allow you to select which source will send sounds to the **Sampler Engine**.

	MICROPHONE The **1st key selects the built-in Microphone**, which will automatically be selected by default if there is nothing plugged into the Aux Input.
	AUX INPUT The **2nd or middle key selects the AUX input**... when a cable is plugged into the Aux Input, CHOMPI will automatically switch to this input.
	RE-SAMPLE The **3rd key selects Re-Sample.** This option is special and allows you to internally route the master output directly to the Sample Engine to Re-Sample over and over again.

FX POSITION

Moving on down the keyboard, we find the **FX Position keys**.

- These toggle the position where the **Multi-FX** are located in the signal path, **pre or post looper**.

	PRE-LOOPER The **Left Key** applies the FX to the sounds **before** they go into the Looper, thus recording your FX into your loops
	POST-LOOPER And the **Right Key** applies the FX to the entire signal being played **after** it's been combined with the Looper.

- This option is really fun to experiment by **layering your FX** on top of one another!

PRESET MANAGEMENT

And finally the last 3 black keys contain the Preset Management Functions.

- These allow you to manage and organize your presets directly on the device. Each key press activates the function, and then has a couple simple LED indications to guide you along.
    - *See LEVEL 07: Managing Presets for more information*

	ERASE The **1st key is ERASE**, and displays a Red LED
	COPY The **2nd is COPY,** showing a green LED
	SAVE And the **3rd key is SAVE** which has a blue LED.

LEVEL 07: MANAGING PRESETS

CHOMPI BUFFER
Now before we jump into managing and saving presets, it's really important to know about the CHOMPI Buffer.

- This is the 15th white key on the right end of the keyboard, and has a similar icon to the UP position of the MODE Switch.
- This is where **recorded samples are temporarily stored and recalled** until you power cycle the device. Each new recording will replace the previous one, until it gets saved into a preset slot.
- **IMPORTANT:** Both the CHOMPI Buffer and LOOPER Buffer are wiped clean each time you power cycle the device, so it's important to understand how to save your samples so you don't lose any precious material

So what are these **PRESETS?**
CHOMPI ships with a couple preset samples to get you started. We've pre-loaded a fun mix of vintage throwbacks and some quirky drum beats to jam along to. But feel free to save over them, or load your own onto CHOMPI. If you ever want to load the originals back onto CHOMPI, you can download the default sample pack from our website.

- ◆ As we mentioned in the previous level, CHOMPI utilizes two different types of sampling engines to store presets:

JAMMI MODE ENGINE	
≪ ◖◗	• **Chromatic** sample playback, up and down the keyboard
➔ **JAMMI Mode contains 3 banks of 14 Chromatic Presets each**. When you select one of these, you will be able to play that sample up and down the keyboard at different pitches/speeds (up to 7 keys at a time). ◆ Remember when we talked about the SPEED Knob earliers? Well chromatic presets follow the same logic. The higher the note on the keyboard, the faster the sample is played which creates a higher pitched sound. The lower the note, the slower the playback, creating a lower pitched sound.	

CUBBI MODE ENGINE	
≫ ◖◗	• **1-Shot** sample playback on the lower row of white keys
➔ **CUBBI Mode contains 3 banks of 1-Shot Sample Slots**. This means that each white key can hold a completely different sample. This type of preset is especially useful for creating rhythms & storing/recalling loops. ◆ Each bank can hold a different preset in slots #1-14… and just like with JAMMI Mode, you can trigger up to 7 keys at a time.	

How to select a bank or preset

- **Step 1:** Make sure the MODE switch is in the DOWN position, then press and hold the CHOMPI key.
- **Step 2:** While you're holding the CHOMPI Key, select the desired black keys to choose Mode/Bank. You can toggle and cycle through the JAMMI Mode Banks on the left or the CUBBI Mode Banks on the right. Slots with presets saved on them will exhibit a solid LED state and match the bank that is currently selected. The 3 Banks are indicated by the following LED colors:
    - Bank A = Purple
    - Bank B = Gold
    - Bank C = Teal
- **Step 3:** Keep holding the CHOMPI Key, and select a preset by pressing the desired numbered key slot on the lower row of the keyboard.
- **Step 4:** Your preset has now been selected! Release the CHOMPI key to exit the Shift Menu and return the keyboard back to normal.

SAVE YOUR SAMPLE
Ok, so let's say that you've recorded a cool sound sample into the CHOMPI Buffer and now you want to save it. Here are the basic steps.

How to Save a Sample:

- **Step 1**. When ready to save your sample, press & hold the **CHOMPI key** *(Mode Select Switch in the DOWN ↓ Position)*, then **press the Save key** 💾 (Blue LED). Once the keyboard indicator lights start blinking, release the CHOMPI key.
- **Step 2. Locate desired save destination** by toggling **JAMMI** & **CUBBI** Mode Banks, then pressing a **numbered key slot.** Chosen destination will indicate with a solid Blue LED.
- **Step 3.** Press the **CHOMPI key to confirm the Save.**

- **Remember, Saving is Optional:**
- Just remember, the CHOMPI Buffer and the Looper Buffer will wipe & reset each time you power cycle your instrument… so be sure to save anything that you might want to return back to later!
    - One unique aspect of CHOMPI's temporary recording buffers is that there is no immediate concern for "messing" anything up, each time you power on the instrument. We find that this approach encourages the user to pick it up and jam more freely, just to see if they can conjure up some magic in the moment. If a particular session was successful, save it! But if a session results as more of an exploration of a flighty idea… it can be released into the wild blue yonder when you power off your CHOMPI ;)
- If you want to take a deeper dive into this process, feel free to check out our Managing Samples with CHOMPI "crash course" video here: https://www.youtube.com/watch?v=cMQyS4JfaBE

CHECKPOINT

CONGRATULATIONS!
You have officially made it through the basic levels of learning how to play CHOMPI! Give yourself a hug, a fist-bump, a pat on the back, **you did it!** Also, that was a loooooottt of information to take in. Pheeww! It's ok if you feel a little overwhelmed. Feel free to skip back and forth, or revisit the same section over and over again. Everyone learns at different paces! The most important thing is to enjoy the process, have fun, and start exploring! Along the way, feel free to share your discoveries with us #CHOMPIjamz. Or just simply enjoy the journey of discovering new skills and making weird sounds. There's no wrong way to CHOMPI 🙂

ADVANCED FUNCTIONS

IMPORTING & EXPORTING SAMPLES

Follow the steps below, when IMPORTING and/or EXPORTING new samples with CHOMPI's micro SD Card.

Step 01: Remove Micro SD Card from CHOMPI
- Carefully remove the micro SD card from the slot located on the right side of the rear panel (next to the handle)
- Tip: the slot is designed with a round hole in the center that nicely fits a 3.5mm cable end, ballpoint pen or something similar. The card is spring loaded so watch for any flying sd cards ;)

Step 02: Insert Micro SD Card into your Computer
- Using a standard micro SD card adapter, load the card onto your computer just like any other external hard drive or storage device

Step 03: Backup your Samples (Optional)
- Now is a great time to take a second and backup your samples and presets that are currently being stored on the card.
- It's good practice to select all of the files on in the root directory of the card, and simply copy them into a new folder on your computer
- The Audio files (.wav files) are the priority, but you may also want the other firmware files just in case (.bin, .txt, .json files).

Step 04: Organize your files
- Closely inspect the current number of samples saved on the card, as well as their file name.
- File Naming Structure as follows:
  - 2 different types of engines - JAMMI (chromatic) & CUBBI (1-shot)
  - Each with 3 banks
    - Bank A = Purple
    - Bank B = Gold
    - Bank C = Teal Blue

- - Each Bank contains sample slots numbered #1-14
- EX: Chromatic Engine, Bank B (Gold), Sample Slot #4 would be named:
  - "Jammi_b4.wav"
- If you are planning to import any new samples onto a currently used preset slot, you will need to first delete the file you're intending to replace.
- **NOTE:** For every sample slot, there are actually two audio files... one is the standard speed file, and the other is a double speed file that gets created in the sample optimization process (see below)

Step 05: Copy New Samples onto SD Card
- Move/Copy any samples that you wish to import into CHOMPI onto the root directory of the SD card (NO FOLDERS)
- Samples must be formatted as: **16bit 48khz STEREO .wav**
- Be sure to properly name each file to match the appropriate Engine, Bank and Sample Slot you wish save it to
- Remember... **No Duplicate File Names**

Step 06: Reinstall Micro SD Card Back into CHOMPI
- Carefully reinsert the micro SD card back into CHOMPI.
  - **WARNING:** due to the way the panel enclosure is designed, it *is* possible to *miss* the card slot and drop your SD card into the enclosure. If this happens, simply remove one of the side panels and shake the SD card out.

Step 07: Power On CHOMPI and Enjoy the LED Lightshow
Depending on how well your battery is charged, it might be a good idea to plug in CHOMPI to a USB power source for this next part.
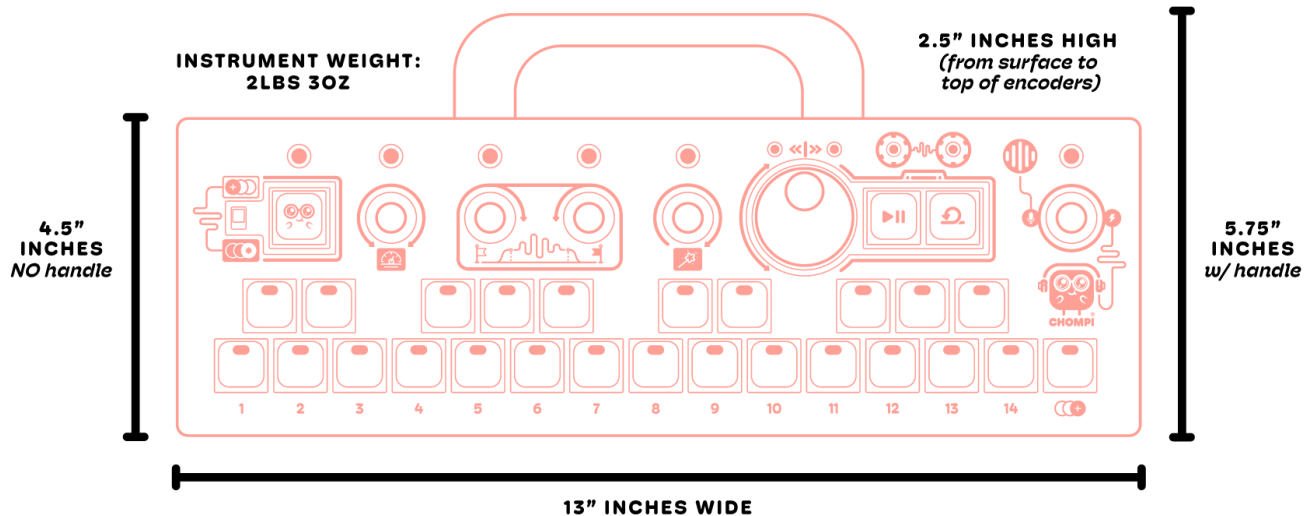- Flip the power switch towards the lightning bolt icon to boot up CHOMPI
- Wait for the LED animation to complete
  - Every time CHOMPI boots up, it checks the SD Card to see if there are any new samples that need to be optimized. If it recognizes new files, it will launch the optimization process (this is indicated by the initial LED "glowing" animation on bootup).
  - Depending on the size/length of the files you are importing, this process may take a couple mins... But this process is only necessary the first time a new file is imported.
  - Once you see the "rainbow" animation on the LED's, you should be good to go!
  - **NOTE:** if CHOMPI does not recognize the SD card when it boots up, the upper row of LEDs will blink RED. If this happens, power off the device, insert the SD card and try again.

Your new samples should now be loaded and optimized on your CHOMPI!

*The process for **updating CHOMPI's firmware** is virtually the same as the steps above... if CHOMPI recognizes a new firmware (.bin file) upon bootup, it will automatically launch the firmware bootloader program and update to the new version. Once the update is complete, CHOMPI will continue the boot-up process with the "rainbow" wave animation on the LED's... then you're ready to CHOMP!*

TECHNICAL SPECS

SPECS:

INSTRUMENT WEIGHT: 2LBS 3OZ

2.5" INCHES HIGH
(from surface to top of encoders)

4.5" INCHES
NO handle

5.75" INCHES
w/ handle

13" INCHES WIDE

- **Hardware Dimensions & Weight**
  - 13in Wide x 4.5in Deep (without Handle) 5.75in Deep (with Handle) x 2.5in Tall (table/surface to top of encoders)
  - Weight = 2lb 3oz
- **Component Breakdown**
  - CHERRY MX Mechanical Keyboard (Backlit with 25 RGB LEDs)
    - "Hot-Swap" keyboard design allows for key switch customization (Compatible with most MX style 3 or 5 pin switches)
    - Ships with Authentic CHERRY MX Silent Reds
  - Smooth (no detent) Endless Encoders w/ toggle press button action
    - RGB LED Indicators display Knob Position
  - Custom Panel Enclosure Design (made of FR4 & Copper with Gold ENIG)
- **Power Specs & Recommendations**
  - Built-In Lithium Ion Polymer Battery - 3.7v 2500mAh
    - Average runtime = 3-4hrs with typical usage
  - Minimum battery charging spec (while powered off): 5V ⎓ 0.5A
  - Recommended USB (type C or A-to-C) power brick for standard operation: 5V ⎓ 2A or higher
- **SD Card**
  - SD Card Contains:
    - Stored Samples from all JAMMI & CUBBI Mode Banks/Slots
    - Firmware (.Bin File)
    - Preset Parameters (.json File)
    - Firmware Boot Logs (.txt File)
  - CHOMPI's firmware has been optimized to work with the provided 8GB SanDisk Edge Micro SD Card. If you decide to upgrade your SD Card, we recommend choosing another high speed, Class 10 micro SD Cards from SanDisk.
  - Note: CHOMPI can only utilize a maximum of 4GB on the SD card and will ignore any additional storage space

- **Sample File Types**
  - Sd card storage size:
    - 4GB dynamic storage (roughly 6 hrs of stereo sample time - 16bit 48khz)
  - Sample max length:
    - Individually stored/imported samples do not have a maximum file length as long as the **sum** of all samples does not exceed 6 hours total
    - However, for maximum efficiency throughout CHOMPI's workflow, we recommend keeping samples under 2.5mins
  - Each Recording buffer contains 2:45 of temporary write storage. Recordings and/or copied samples will be trimmed once the maximum length is reached.
    - CHOMPI Buffer Max Length: 2:45
    - LOOPER Buffer Max Length: 2:45
- **Connectivity Specifications**
  - Master-Out
    - 3.5mm Stereo *Line Level* Output Signal
  - Headphone-Out
    - 3.5mm Stereo Headphone Output Signal
  - Aux-In
    - 3.5mm Stereo *Line Level* Input
  - MIDI In & Out
    - 3.5mm MIDI **Type A** Jacks
  - USB-C Port
    - Class Compliant USB-C MIDI Device (In & Out)
    - Minimum battery charging spec (while powered off): 5V ⎓ .5A
    - Recommended USB (type A-to-C, or C-to-C) power brick for standard operation: 5V ⎓ 2A or higher

MIDI

As of December 2023 (flagship firmware Version 1_0_6.bin) CHOMPI's MIDI activity is limited to Channel 01. We are currently working on the user configuration bootloader that will open up user customization options like changing MIDI Channel, CC's, etc...

CHOMPI is a class compliant MIDI device which sends and receives MIDI Data through both the USB-C port and the two 3.5mm MIDI (Type A) jacks on the left side of the instrument.

MIDI Out:

- CHOMPI sends 2 octaves of MIDI Note data from it's chromatic keyboard on Channel 01

MIDI In:

- CHOMPI receives both MIDI Note Data as well as MIDI CC Data on Channel 01
- Below is the Midi CC Map Chart
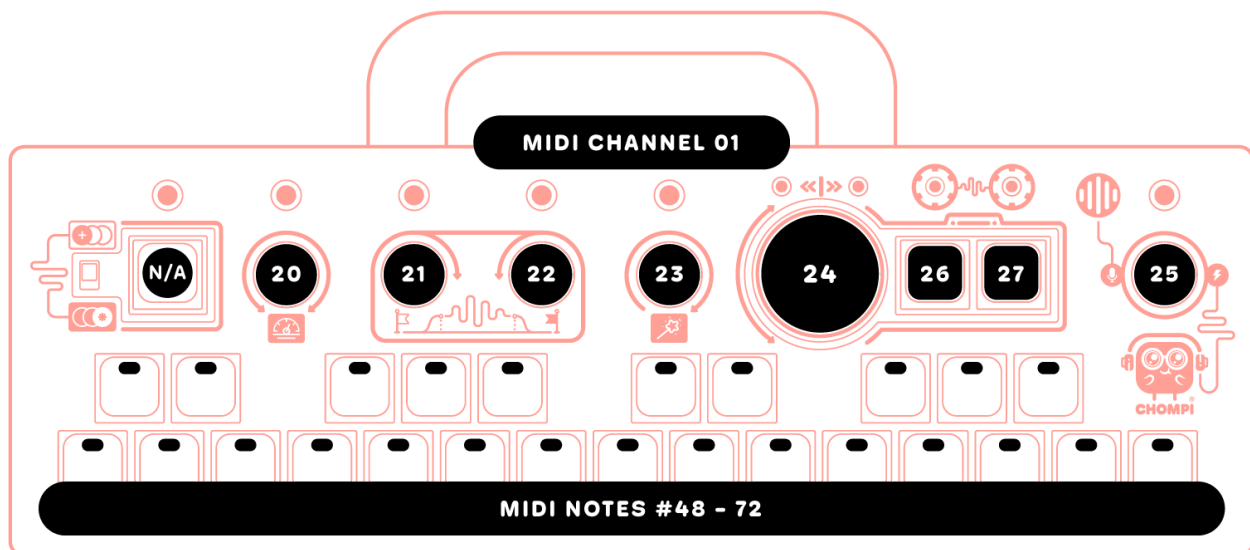
WARRANTY INFORMATION

CHOMPI CLUB LLC warrants newly purchased products to be free of defects in materials or construction for a period of 90 days from the date of purchase (proof of purchase/invoice required). Malfunction resulting from user error, abuse of the product, removing knobs or keys, incorrectly servicing enclosure panels, or any other causes determined by CHOMPI CLUB to be the fault of the user are not covered by this warranty. During the warranty period, any defective products will be repaired or replaced, at the discretion of CHOMPI CLUB on a case by case basis. CHOMPI CLUB implies and accepts no responsibility for harm to person or apparatus caused through operation of this product.

The warranty covers defects that CHOMPI CLUB determines are no fault of the user and is entirely subject to CHOMPI CLUB's discretion. This warranty does not cover normal wear and tear and will be void under the following circumstances:
- Changes or Modifications not approved by the manufacturer;
- if instrument enclosure is opened or serviced incorrectly;
- if the incorrect power supply is used and/or if improper battery configuration is used;
- if damaged by user:
  - Abuse, unreasonable use, mistreatment, or neglect.
  - Unusual physical or electrical stress and/or power fluctuations.
  - Damage caused by the equipment or system with which the Product is used.
  - Damage caused by hardware and/or software modification or repair not made or authorized by CC.
  - Products that are determined to be stolen.

A copy of the receipt or a bill of sale bearing the appropriate name, location and model of the Product for which the defect has been reported may be required as a proof of purchase for warranty service. The Product must be carefully packed for shipment to our factory. Damage occurring due to improper shipment will void the warranty.

Warranty Procedure:
In the unlikely event you discover that your CHOMPI is not functioning correctly, start by making sure the issue is originating with your CHOMPI's hardware. Check your power supply, external devices, SD card, firmware version and other additional variables to rule out all possibilities. Once you have determined your CHOMPI is indeed experiencing an issue, please reach out via email or the CHOMPI CLUB Discord server explaining the situation.

If it is determined that a repair or refund is necessary, we will send you a RMA #, as well as instructions on how and where to send your package. Items sent to us without first requesting a RMA # will not be accepted.

Repair lead times average to about 2 weeks once the device arrives in our shop. Lead times are contingent on the complexity of the repair, and fluctuate thusly. In the unlikely event that we cannot repair your CHOMPI, we will reach back out with suggested options. We will not replace units that have experienced user damage, as mentioned above, and CHOMPI CLUB reserves the right to subject all potential replacements to their own discretion. Repair parts or replacement Products may, at CHOMPI CLUB's option, include an equal or better model or features.

FCC COMPLIANCE
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.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her/their own expense.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

CHOMPI CLUB IS NOT RESPONSIBLE FOR SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES HOWEVER CAUSED AND WHETHER OR NOT CHOMPI CLUB WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF DATA OR PROGRAMS, LOST PROFITS, DOWNTIME, GOODWILL, DAMAGE OR REPLACEMENT OF EQUIPMENT AND PROPERTY, AND ANY COSTS OF RECOVERING.

This Statement of Limited Warranty shall be exclusively interpreted in accordance with the English language with the meaning of its terms. Should a translation of this Limited Warranty deviate from the English language version, only the English language version shall apply and be binding.