Analog Heat + X Quick Guide

delektron

Analog Heat +FX

THANK YOU

Thank you for purchasing Analog Heat +FX. In this third incarnation of Analog Heat, it is the ultimate tool to create your signature sound. On top of its powerful analog distortion circuits, filter, and EQ, we've added a new layer of digital effects. Using the newly designed graphical user interface, you can freely arrange the effect chain and choose the order of the FX blocks. Then, use the expanded internal and external modulation capabilities to set it all in motion.

There are many new additions to explore, taking Analog Heat's palette of color and destruction to the next level. Some will even do the opposite and help you keep signals controlled and present in the mix.

All these elements come together to create a box that looks familiar but, at the same time, is much more than the sum of its parts. Let the sound be your canvas!

- The Elektron Team

FCC compliance statement

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- · Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003

European Union regulation compliance statement

This product has been tested to comply with the Low Voltage Directive 2014/35/EU and the Electromagnetic Compatibility Directive 2014/30/EU. The product meets the requirements of RoHS 2 Directive 2011/65/EU.



Your product must be disposed of properly according to local laws and regulations.

Legal disclaimer

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IMPORTANT SAFETY INSTRUCTIONS

- 1. Do not use the unit near water.
- 2. Never use aggressive cleaners on the casing or on the screen. Remove dust, dirt and fingerprints with a soft, dry and non-abrasive cloth. More persistent dirt can be removed with a slightly damp cloth using only water. Disconnect all cables before doing this. Only reconnect them when the product is safely dry.
- 3. Install in accordance with the manufacturer's instructions. Make sure you place the unit on a stable surface before use.
- 4. Connect the unit to an easily accessible electrical outlet close to the unit.
- 5. When transporting the unit, preferably use accessories recommended by the manufacturer or the box and padding the unit was originally shipped in.
- 6. Do not install near any heat sources such as radiators, heat registers, stoves, or any other appliance (including amplifiers) emitting heat.
- 7. Do not block the ventilation holes located on the bottom of the enclosure of the unit. Make sure there is sufficient air circulation in the room where the unit is kept.
- 8. This product, in combination with an amplifier and speakers or headphones, is capable of producing sound levels that can cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable.
- 9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the unit.
- 10. Only use attachments/accessories specified by the manufacturer.
- 11. Unplug this unit during lightning storms or when it is not used for an extended time.
- 12. Refer all servicing to qualified service technicians. Servicing is required when the unit has been damaged in any way, liquid has been spilled or objects have fallen into the unit, the unit has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING!

TO REDUCE THE RISK OF FIRE, ELECTRICAL SHOCK OR PRODUCT DAMAGE

- Do not expose the unit to rain, moisture, dripping or splashing and also avoid placing objects filled with liquid, such as vases, on the unit.
- Do not expose the unit to direct sunlight, nor use it in ambient temperatures exceeding 40°C as this can lead to malfunction.
- Do not open the casing. There are no user repairable or adjustable parts inside. Leave service and repairs to trained service technicians only.
- Do not exceed the limitations specified in the Electrical specifications.

SAFETY INSTRUCTIONS FOR THE POWER ADAPTER

- The adapter is not safety grounded and may only be used indoors.
- To ensure good ventilation for the adapter, do not place it in tight spaces. To prevent risk of electric shock and fire because of overheating, ensure that curtains and other objects do not prevent adapter ventilation.
- Do not expose the power adapter to direct sunlight, nor use it in ambient temperatures exceeding +35°C (+96°F).
- Connect the adapter to an easily accessible electrical outlet close to the unit.
- The adapter is in standby mode when the power cord is connected. The primary circuit is always active as long as the cord is connected to the power outlet. Pull out the power cord to completely disconnect the adapter.
- In the EU, only use CE approved power cords.

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1. INTRODUCTION

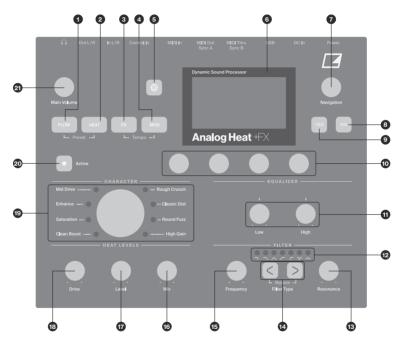
1.1 CONVENTIONS IN THIS MANUAL

We have used the following conventions throughout the manual:

- Key names are written in upper case, bold style and within brackets. For example, the key labeled "YES" is called **[YES]**.
- Knobs are written in upper case, bold, italic letters. For instance, the knob "Frequency" is called *FREQUENCY*.
- LED indicators like the Filter Type LEDs are written like this: <FILTER TYPE>.
- Menu names are written in upper case letters. For example, the SYSTEM menu.
- Parameter names and certain menu options where settings can be made or actions performed are written in bold, upper case letters. For example, **ATTACK**.
- · Uppercase letters are used for parameter setting alternatives, for example, OFF.
- Messages visible on the screen are written in upper case letters with quotation marks. For example, "INPUT LEVEL TOO HIGH!".

2. PANEL LAYOUT AND CONNECTIONS

2.1 FRONT PANEL CONTROLS

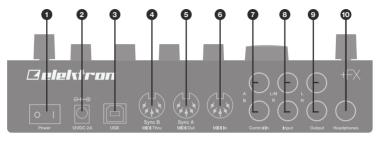


- 1. **[FLOW]** accesses the FLOW parameter page where you can change the order of the FX blocks in the signal path, activate/deactivate each FX block. You can also set the dry/wet mix of each effect block.
- 2. [HEAT] accesses the AMP, FILTER, and GATE parameter pages where you, among

other things, can select filter types and adjust the equalizer.

- 3. **[FX]** accesses the parameter pages for the digital effects.
- 4. **[MOD]** accesses the ENV parameter pages where you adjust the settings for the envelope generator/envelope follower and the LFO parameter pages. Here you also find the Mod matrix.
- 5. **[SETTINGS]** accesses the SETTINGS menu. Contains both global settings and preset settings.
- 6. Screen.
- 7. **NAVIGATION** is used for navigating menus, scrolling through lists and selecting options.
- 8. [NO] is used for exiting the current menu, backing to a higher level menu and negating.
- 9. [YES] is used for entering sub-menus, selecting and confirming.
- 10. DATA ENTRY knobs. Used to set parameter values.
- 11. *LOW* and *HIGH* adjust the amount of low-end and high-end frequency gain or attenuation of the effect circuit in the Heat block.
- 12. <FILTER TYPE> LEDs that indicate the current type of filter and also if the filter is on or not.
- 13. **RESONANCE** sets the resonance of the Heat block's filter.
- 14. **[FILTER TYPE]** selects between the different filter types in the Heat block. Pressing both keys at the same time toggles the filter on and off.
- 15. FREQUENCY sets the cutoff frequency of the Heat block's filter.
- 16. *MIX* sets the balance between the Heat block's unprocessed (dry) signal and the processed (wet) signal.
- 17. LEVEL sets the level of the processed (wet) signal in the Heat block.
- 18. **DRIVE** controls the amount of drive in the Heat block. This parameter increases the effect of the selected circuit type.
- 19. *CIRCUIT SELECTOR* chooses between the eight different types of effect circuits in the Heat block.
- 20. [ACTIVE] toggles the effect between active (LED on) and bypassed.
- 21. MAIN VOLUME sets the main volume for the L/R and Headphones audio outputs.

2.2 REAR PANEL CONNECTIONS



- 1. POWER, Switch for turning the unit on and off.
- 2. DC IN, Input for power supply. Use the included PSU-3b power adapter connected to a power outlet.
- 3. USB, For connecting the unit to a computer. Used for MIDI control or Overbridge. Connect to a computer host using the included A to B USB 2.0 connector cable.
- 4. **MIDI THRU/SYNC B**, Forwards data from MIDI IN. Can also be configured to send DIN sync to legacy instruments. Use a standard MIDI cable to connect another MIDI unit in the chain.
- 5. MIDI OUT/SYNC A, MIDI data output. Can also be configured to send DIN sync to legacy instruments. Use a standard MIDI cable to connect to MIDI In of an external MIDI unit.
- 6. **MIDI IN,** MIDI data input. Use a standard MIDI cable to connect to MIDI Out of an external MIDI unit.
- 7. CONTROL IN A/B Inputs for an expression pedal, footswitch, or CV. Use 1/4" mono phone plug for CV signals.
- 8. **INPUT L (mono)/R**, Audio inputs. Use either 1/4" mono phone plug (unbalanced connection) or 1/4" (Tip/Ring/Sleeve) phone plug (balanced connection).
- 9. **OUTPUT L/R**, Main audio outputs. Use either 1/4" mono phone plug (unbalanced connection) or 1/4" (Tip/Ring/Sleeve) phone plug (balanced connection).
- 10. **HEADPHONES**, Audio output for stereo headphones. Use 1/4" (Tip/Ring/Sleeve) phone plug.

3. FIRST STEPS WITH THE ANALOG HEAT +FX

3.1 CONNECTING THE UNIT

Make sure you place the Analog Heat +FX on a stable support, such as a sturdy table with sufficient cable space. Before you start connecting the Analog Heat +FX to other units, make sure all units are switched off.

- Plug the supplied DC adapter to a power outlet and connect the small plug to the 12 V DC connector of the Analog Heat +FX unit.
- 2. Connect the audio source to INPUT L/R.
- 3. Connect the OUTPUT L/R from the Analog Heat +FX to your mixer or amplifier.
- 4. To process sound or control the Analog Heat +FX from a computer, connect a USB cable between the computer and the USB connector of the Analog Heat +FX. You must also download and install the Overbridge Suite to perform for these actions.
- 5. If you want to use MIDI to control the Analog Heat +FX, connect the MIDI OUT port of the device you wish to send data from to the MIDI IN port of the Analog Heat +FX. The MIDI THRU port duplicates the data arriving at the MIDI IN port, so you can use it for chaining MIDI units together.
- 6. Switch on all units. Switch on the Analog Heat +FX by pressing the Power switch located at the back of the unit.

3.2 SETTING THE INPUT SENSITIVITY LEVEL

To make sure the Heat distorts as intended it is essential to set the audio input sensitivity so that it matches the level of the sound source. (Note that the settings made here only affects the analog input and not the digital input from Overbridge.) Use the audio input meter on the screen to monitor your audio input level and follow these steps to set the input sensitivity level:

1. Connect your sound source to the IN L/R inputs of the Analog Heat +FX and make sure that the volume of the sound source is as loud as possible.

 Press [SETTINGS] and the select INPUT SENSITIVITY. Keep an eye on the audio input meter and change the input sensitivity until you find a setting where the bar reaches the vertical line but without clipping. The message "INPUT LEVEL TOO HIGH" is displayed on the screen when the input level is too high, and clipping occurs.

INPUT SENSITIVITY	HAX
L	
R	
CONNECT AND PLAY YOUR AUDI	
SOURCE TO TEST SIGNAL LEVE	

Optimal input level.

1	CNPUT SENSITIVITY HRX
L	INPUT LEVEL TOO HIGH!
R	INPUT LEVEL TOO HIGH!
	CONNECT AND PLAY YOUR AUDIO SOURCE TO TEST SIGNAL LEVEL

Too high input level.

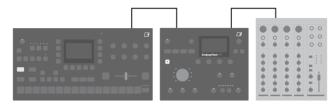
3. Adjust the level at the sound source if needed.

3.3 SETUP EXAMPLES

The Analog Heat +FX is very well suited for use in both an analog setup and in a more digital environment. Here are a couple of examples of how you can use the Analog Heat +FX.

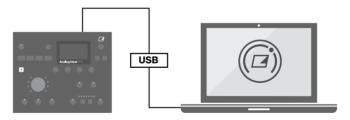
ANALOG HEAT +FX AS AN EXTERNAL EFFECT

In this example, the Analog Heat +FX is used as an external effect to add color to the Elektron Octatrack before the signal reaches the mixer.



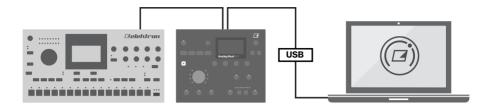
ANALOG HEAT +FX AS A VST/AU/AAX PLUGIN USING OVERBRIDGE

Analog Heat +FX can also be used together with Overbridge to allow you to use the Analog Heat +FX as a plug-in for analog and digital sound processing in your DAW.



ANALOG HEAT +FX AS A SOUND CARD

Analog Heat +FX also functions as a 2 in/2 out sound card for your computer and can be used for both recording and monitoring audio. At the same time you can, via Overbridge, use the effect to process another set of audio signals.

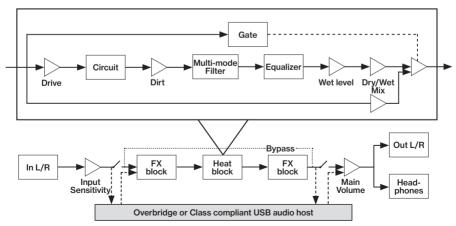


4. SIGNAL FLOW

The following illustrations show the signal flows of the Analog Heat +FX.

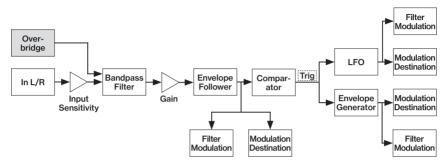
4.1 AUDIO SIGNAL FLOW

This illustration shows the general flow of audio through the Analog Heat +FX. The complete signal chain is in stereo.



4.2 MODULATION SIGNAL FLOW

This illustration shows the flow of how modulation signals are generated and routed through the Analog Heat +FX.



5. THE USER INTERFACE

5.1 PRESETS

The Analog Heat +FX has 512 preset slots where you can store your presets. Preset slot A001 is an INIT preset with default values. Note that, when you switch off your device, you lose any changes you have made to the currently active preset unless you first save it.

LOADING A PRESET

- 1. Press the [FLOW] and [HEAT] keys simultaneously to open the preset list
- 2. Press a *DATA ENTRY* knob to select bank A–D (if you want to load a preset from another bank).
- 3. Turn NAVIGATION to select a preset.
- 4. Press NAVIGATION or [YES] to load the preset.

SAVING A PRESET

- 1. Press and hold the **[FLOW]** and **[HEAT]** keys simultaneously for two seconds to open the preset list. The selected preset starts to blink to illustrate that you are about to overwrite a preset position.
- 2. Press a *DATA ENTRY* knob to select bank A–D if you want to save the preset to different bank.
- 3. Turn *NAVIGATION* to select the preset slot to where you want to save your sound and then press [YES].
- 4. (Optional) Turn NAVIGATION to the character you wish to edit. Press and hold [SETTINGS] and then turn NAVIGATION to move the cursor to the desired character and select it by releasing [SETTINGS]. To delete a character, turn NAVI-GATION to move the cursor to highlight the character after the one you wish to delete, then press and hold [SETTINGS] and press [NO] twice.
- 5. Press [YES] to save the preset.

5.2 ACTIVE

When you set the Active to ON, the Analog Heat +FX affects the incoming signal. The active mode is toggled on and off by pressing **[ACTIVE]**. A lit **[ACTIVE]** key indicates that the device is active. You can also use a footswitch to toggle the active mode. You also have the option to set if you want the Analog Heat +FX to start as active or not when you turn it on

5.3 EFFECT CIRCUITS

You can use the *CIRCUIT SELECTOR* to choose between 8 different types of effect circuits in the Heat block for a wide variety of drive and distortion sounds.

CLEAN BOOST

Makes the signal louder. When fully driven, it sounds similar to overdriving old mixers. Use for minimal distortion or when you only want to use the filter and EQ.

SATURATION

This circuit is reminiscent of classic tape saturation. Woolly and warm.

- ENHANCEMENT
 - Adding tube-like glow and sheen to a track or loop.
- MID DRIVE Mid-range focused overdrive with a solid and distinct body.
- ROUGH CRUNCH

Gritty, worn and gnarly character. Full of flavor.

- CLASSIC DIST
 Pleasantly distorts upper mid-range frequencies. This circuit is ideal for acid bass lines.
- ROUND FUZZ

Adds many harmonics and alters the signal in interesting and often unpredictable ways.

HIGH GAIN

Probably the most aggressive of all the circuits. Very maxed out!

5.4 FILTER TYPE

Change the type of the Heat block's filter by pressing one of the two **[FILTER TYPE]** keys. You can also press the two **[FILTER TYPE]** keys simultaneously to toggle the filter on/off. It is possible to change the filter type even if the filter is turned off.

There are seven different analog filter types in the Analog Heat +FX to help to shape the sound.

- LOW PASS 2 (two-pole, 12 dB per octave)
- LOW PASS 1 (one-pole, 6 dB per octave)
- BAND PASS
- HIGH PASS 1 (one-pole, 6 dB per octave)
- HIGH PASS 2 (two-pole, 12 dB per octave)
- BAND STOP (NOTCH)
- PEAK

5.5 EQUALIZER

LOW and *HIGH* adjust the amount of low-end and high-end frequency gain or attenuation of the effect circuit in the Heat block.

5.6 DRIVE

DRIVE sets the gain level in the effect circuit in the Heat block. A higher setting increases the effect of the selected circuit type, typically resulting in more distortion.

5.7 LEVEL

LEVEL sets the level of the signal coming from the effect of the Heat block. It is applied before the MIX parameter.

5.8 MIX

MIX sets the mix of the clean signal and the signal that is affected by the Heat block's effect.

5.9 SETTINGS MENU

Press [SETTINGS] to access the SETTINGS menu.



Scroll through the list of settings by using the *NAVIGATION* knob. Open a highlighted menu by pressing the *NAVIGATION* knob or **[YES]**. To change the settings in the menus, first press, and then turn the *NAVIGATION* knob.

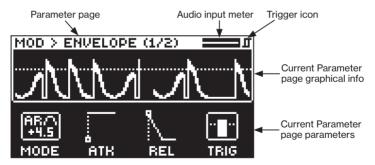
5.10 PARAMETER PAGES

Press a **[PARAMETER]** page key to access the corresponding parameter pages **[FLOW]**, **[HEAT]**, **[FX]**, and **[MOD]**. There are usually several parameter pages associated with each key. You access these pages by turning the *NAVIGATION* knob.

5.11 PARAMETER EDITING

The four *DATA ENTRY* knobs are used to change the parameter values that you see on the screen. (Some parameters also have dedicated knobs on the panel.) The physical location of the knobs on the front panel corresponds to the layout of the parameters on the screen.

- The parameters are adjusted in larger increments if you press down the DATA ENTRY knob while turning it. This feature makes it much quicker to sweep through a whole parameter range.
- Press [SETTINGS] + turn DATA ENTRY knob to quantize the parameter value to integers.
- Press DATA ENTRY knob + [NO] to reset the parameter to the default value.
- Press [PARAMETER] page key + [NO] to reset the selected parameter group to default values.
- Use the [NO] key to exit an active menu, back to a higher level menu and to negate.



5.12 SCREEN INFORMATION

 When on a parameter page, the title bar shows the name of the active parameter page. This text is replaced by parameter names when turning the *DATA ENTRY* knobs or the dedicated controllers.

- The Audio Input meter displays the level of the incoming audio.
- The Trigger icon shows that the Envelope Follower, an external gate signal or manual triggering has generated a trigger event.
- The graphical information varies depending on the current PARAMETER page.
- The PARAMETER page parameters show what the *DATA ENTRY* knobs control and their current parameter values.

5.13 OVERBRIDGE

The Overbridge software suite allows you to use the Analog Heat +FX as a VST/AU/AAX plug-in for analog distortion and filter processing in your DAW. It also has a librarian for a clear overview of your presets and gives the ability to load, edit, and save them.

When using the Overbridge setup, the user interface for the Analog Heat +FX presents itself as a plug-in window in your DAW. Browse through and organize presets. Access, edit or automate parameters for sound shaping on screen. Always find your device preset parameters in the same state as you left them when you return to your DAW project, with the useful total recall functionality.

Read more about Overbridge use and availability on the Elektron website: https://www.elektron.se/overbridge/

6. TIPS & TRICKS

Here you find a couple of different examples of some of the things you can do with the Analog Heat +FX.

6.1 STEREO PHASER EFFECT

The Analog Heat +FX can also achieve an effect similar to that of a classic stereo phaser pedal by using the filter frequency panning function.

1. Select any circuit and set the [FILTER TYPE] to BAND STOP.

- 2. Connect your sound source to the Analog Heat +FX and make sure that the volume of the sound source is as loud as possible.
- 3. Make sure the input level is correctly set. For more information, please see "3.2 SETTING THE INPUT SENSITIVITY LEVEL" on page 13.
- 4. Start by setting *LEVEL* to 127, and *MIX* to 63. Set *FREQUENCY* to 64, and *RESO-NANCE* to 0.
- 5. Press the [MOD] key, and then use *NAVIGATION* to access the LFO1 page 2, and change **DEST1** to FILTER PAN and set **DEPTH1** to around +64.
- 6. Press the [MOD] key again and navigate to LFO1 page1 and set SPEED to your liking.

You should now hear a phasing effect applied to your sound. Try playing around with the LFO waveforms, speed, and depth, as well as the filter frequency. The different Filter Types have a different impact on the sound when you use the filter frequency panning.

6.2 ADDING SATURATION TO THE HIGH REGISTER

You can use the Analog Heat +FX to add saturation to the high-frequency register of a full range mix. This is useful when you want to introduce some subtle harmonics to the mix, without distorting the overall sound.

- 1. Select the SATURATION circuit and the HIGH PASS 2 filter.
- 2. Connect your sound source to the Analog Heat +FX and make sure that the volume of the sound source is as strong as possible.
- 3. Make sure the input level is correctly set. For more information, please see "3.2 SETTING THE INPUT SENSITIVITY LEVEL" on page 10.
- 4. Start by setting *DRIVE* to 0, *LEVEL* to 127, and *MIX* to 0. Set the filter *RESONANCE* to 0 and *FREQUENCY* to 100.
- 5. Increase *DRIVE* until you start to hear a little saturation in the higher registers, but not so much that the saturation gets too dominant. The processed signal is lower than the bypassed signal, so you should adjust the preset volume to match the active and bypassed state to be able to A/B test correctly.

Tweak *MIX* and *DRIVE* until you find a nice balance and the sound you want. If you want to use the EQ, remember that only *HIGH* EQ affects the sound, since the low frequencies are filtered out.

7. TECHNICAL INFORMATION

ELECTRICAL SPECIFICATIONS

Impedance balanced audio outputs Main outputs level: +19 dBu Output impedance: 440 Ω

Headphones output Headphones out level: +19 dBu Output impedance: 36Ω

Balanced audio inputs Input level: +19 dBu Audio input impedance: 39 kΩ

Control inputs Input level on tip: -5 V – +5 V Supplies +5 V on ring Accepts CV, Expression pedals, Foot switches

Unit power consumption: 12 W typical Compatible Elektron power supply: PSU-3c

HARDWARE

128×64 pixel OLED screen MIDI In/Out/Thru with DIN Sync out 2 x 1/4" impedance balanced audio out jacks 2 x 1/4" balanced audio in jacks 1 x 1/4" stereo headphone jack 2 x 1/4" control input jacks 48 kHz, 24-bit D/A and A/D converters Electrically isolated hi-speed USB 2.0 port Power inlet: Center positive 5.5 x 2.5 mm barrel jack, 12 V DC, 2 A

PHYSICAL SPECIFICATIONS

Sturdy steel casing Dimensions: W 215 x D 184 x H 63 mm (8.5" x 7.2" x 2.5") (including power switch, jacks, knobs, and feet) Weight: approximately 1.5 kg (3.3 lbs) 100 x 100 mm VESA mounting holes. Use M4 screws with a max length of 7.4 mm. Maximum recommended ambient operating temperature: +35 °C (+96 °F)

8. CREDITS AND CONTACT INFORMATION

CREDITS

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ELEKTRON THREE YEAR WARRANTY

Elektron machines are sold with a three year limited warranty, starting from the date of the original purchase. Being able to prove the date of the original purchase with an invoice or a receipt is necessary if you require warranty service. If the machine should need a repair during the warranty period no charges will be applied for parts or labor. This warranty is transferable to other owners should the Elektron machine be resold during the warranty period. Items belonging to the Elektron Style range of products (t-shirts, stickers, posters etc.) are not covered by this warranty.

This warranty does not cover (a) damage, deterioration or malfunction resulting from accident, negligence, misuse, abuse, improper installation or operation or failure to follow instructions according to either the Quick Guide manual or the full User Manual for this product; any shipment of the product (claims must be presented to the carrier); repair or attempted repair by anyone other than Elektron or a certified Elektron repair center (b) any unit which has been altered or on which the serial number has been defaced, modified or removed; (c) normal wear and any periodic maintenance; (d) deterioration due to perspiration, corrosive atmosphere or other external causes such as extremes in temperature or humidity; (e) damages attributable to power line surge or related electrical abnormalities, lightning damage or acts of God; or (f) RFI/EMI (interference/noise) caused by improper grounding or the improper use of either certified or uncertified equipment, if applicable.

Warranty service procedure for machines bought from a retailer

Please contact their support if you need warranty service. You will then be guided how to proceed with your errand. Note that the Elektron three year limited warranty is in addition to any warranty your retailer may offer.

Warranty service procedure for machines bought from the Elektron Online Shop

Contact the Elektron Support at www.elektron.se if you need warranty service. You cannot send a unit to a certified Elektron repair center unless agreed to by Elektron. The customer is responsible for shipping charges if the machine needs to be shipped to a certified Elektron repair center for warranty service. Elektron covers the shipping back to the customer during the warranty period. Should the unit be dead on arrival, or if the hardware malfunctions within 2 weeks of the original purchase date, Elektron will cover the shipping to a certified Elektron repair center.

