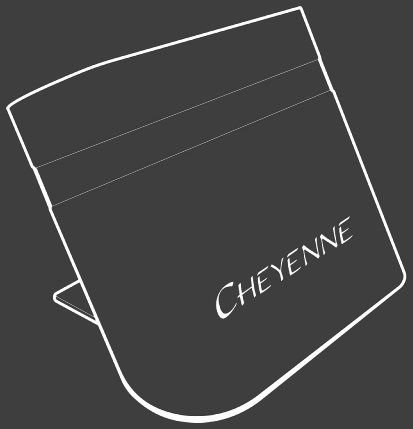
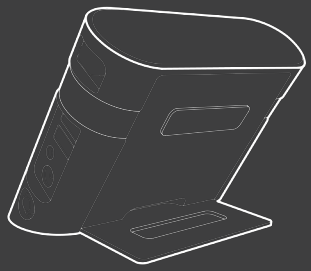




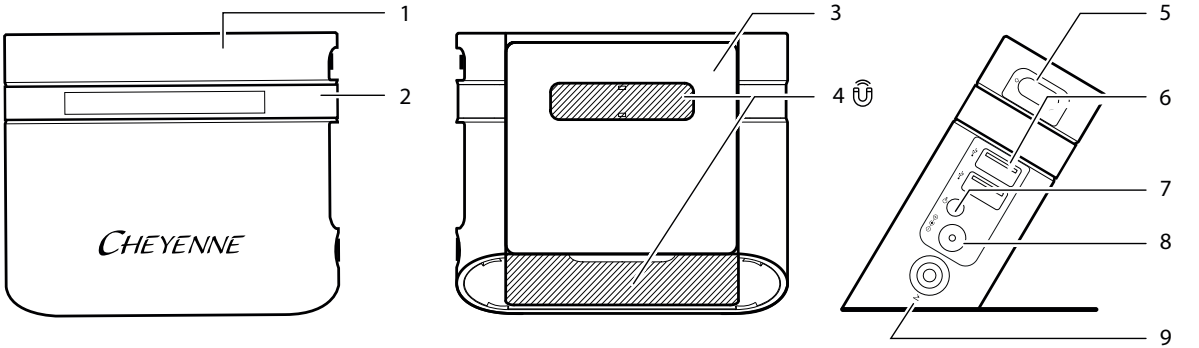
Gebrauchsanweisung
Instruction for use
Gebruiksaanwijzing
Manuel d'utilisation
Istruzioni per l'uso
Instrucciones de uso
Manual de instruções

Οδηγίες
Opskrift
Bruksanvisning
Ohjeet
Instrukcja obsługi
Instrukce
Navodila nt pl za uporabo

Utasítás
Инструкция
使用说明书

CHEYENNE®
PU III

Power Unit III



English
Version 1.2 –
11/02/2020

Translation of the original operating instructions. The original operating instructions were written in German.

CHEYENNE®
PU III

Instruction for use

Contents

1 About this instruction for use

These operating instructions apply to the Cheyenne Power Unit III and to its accessories. They contain important information about how to operate and maintain the device safely and in the intended manner.

These operating instructions do not contain all of the information needed for safe operation of tattooing machines and their accessories. Note the following additional documents:

- Tattooing machine operating instructions
- Information about safety cartridges and tattoo inks
- Safety data sheets about disinfectants and cleaning agents
- Health and safety information and statutory provisions relating to tattooing

1.1 Warning symbols and statements used in this instruction for use

Warning notices draw attention to the risk of personal injury and damage to materials and are structured as follows:

⚠ SIGNAL WORD
Type of hazard Consequences ► Remedy

Element	Meaning
	Indicates a hazard of injury
Signal word	Specifies the severity of the hazard (see table below)
Type of hazard	Gives the type and source of the hazard
Consequences	Describes potential consequences of non-compliance
Remedy	Indicates how to avoid a hazard

Signal word	Meaning
Hazard	Indicates a hazard that will definitely lead to death or to serious injury if the hazard is not avoided
Warning	Indicates a hazard that may lead to death or to serious injury if the hazard is not avoided
Caution	Indicates a hazard that can lead to minor to relatively serious injury if the hazard is not avoided
Notice	Indicates potential risks to the environment, property or equipment if this hazard is not avoided

Symbols used in this operating manual

Symbol	Meaning
►	Call for action
•	List point
-	List sub-point

2 Important safety notices

2.1 General safety information

- ▶ Read these operating instructions carefully and completely.
- ▶ Keep these operating instructions in a readily accessible location for everyone who uses, cleans, disinfects, sterilizes, stores or transports the device.
- ▶ When transferring the device to another person, always enclose these operating instructions.
- ▶ Use the device, its accessories and the power unit as well as all connecting cables in perfect technical condition.
- ▶ Only use tattoo modules, accessory and spare parts from Cheyenne and do not use plug-in power supply units from third-party manufacturers.

2.2 Product-dependent safety information

- ▶ Never modify the device, the power supply or other accessories.
- ▶ Prevent fluids from entering the device and the power supply plug.
- ▶ Protect the device with a self-adhesive protective plastic sheet while tattooing.
- ▶ Disconnect the power supply when the device is not in use.
- ▶ Route all cables so that they cannot kink.
- ▶ Observe the technical data (chapter 4.2 on page 26) specified in these operating instructions, adhere to the operating conditions (chapter 4.3 on page 27) as well as the transport and storage conditions (chapter 8 on page 34).
- ▶ Hand over the device to a specialist retailer for inspection if it exhibits any external signs of damage or if it does not function in the usual manner.

2.3 Important hygiene and safety regulations

- ▶ Before use, follow the steps required to disinfect the equipment (see the chapter 6.1 on page 30).
- ▶ Check regularly to determine whether there is visible soiling of the device. If this has happened, in addition to regular disinfection, you must perform all the steps described in the chapter 7.3 on page 33.

2.4 Required qualification

The device, including its accessories may not be used by personnel with reduced physical, sensory or mental capabilities or children.

The device must only be used by people who have acquired the following knowledge:

- Basic knowledge of the tattooing process, in particular correct insertion depth and frequency.
- Knowledge of the hygiene and safety regulations (see chapter 2.3 on page 24)

2.5 Intended use

The device must be prepared, used and maintained in the manner described in these operating instructions. In particular, the applicable provisions for workplace layout must be observed.

Intended use also includes thoroughly reading and understanding these operating instructions, in particular the chapter 2 on page 24.

Unintended use is defined as using the device or its accessories in a way not described in these operating instructions, or failing to comply with its operating conditions.

2.6 Symbols on the product

The symbols described below can be found in these operating manual, on the device, its accessories or packaging:

Symbol	Meaning
CE	Satisfies the requirements of directives 2014/35/EC (Low-Voltage Directive) and 2014/30/EU (EMC Directive)
	Attention!
	Standby/Operation
	Tattooing machine
	Foot switch
	DC connection / positive inner pin
	USB
	Refer to operating manual!
	Protection with double or reinforced insulation according to Protection Class II
	Manufacturer
	Date of manufacture
REF	Catalog number, order number
SN	Serial number
LOT	Batch code
STERILE EO	Sterilized with ethylene oxide
	Use-by date
	Temperature limit
	Humidity limit
	Protect from wetness
	Only use indoors
	Fragile
	Cannot be use if packaging is damaged
	Not suitable for re-use
	Dispose of properly as used electronic equipment

3 Scope of delivery

1 control device with metal plate
1 power supply plug (E)116602
1 country-specific adapter (EU)
1 country-specific adapter (UK)
1 Country-specific adapter (US)
1 Instruction for use

4 Product information

The Cheyenne Power Units supply power to tattooing machines and allow you to easily control of the piercing frequency while tattooing.

With the PU III, the tattooing machine can be controlled by the non-contact gesture control. This make it more convenient to change the piercing frequency than with conventional pushbuttons. In addition to the control unit of the tattooing machine, other external devices, such as smart phones, can be supplied with power via two USB jacks.

4.1 Overview of functions

Jack	For connection of ...
	external devices via USB
	Tattooing machine
	Power supply
	Optional foot switch

Button/ Control	Function
Device ON/OFF () button	Switch the power unit on/off
Movement sensors	Activate/deactivate gesture control

Gestures in front of the movement sensors	Function
1 x vertical swipe	Release gesture: Activate/deactivate gesture control for adjustment of the piercing frequency
Hold hand in front of the device	Start/stop tattooing machine
Movement of the hand parallel to the bar graph display	Increase/reduce piercing frequency

Light strip	Meaning of the lamp
on bar graph display	Orange: The voltage supply is connected to the device.
	White: The tattooing machine is switched on.

4.2 Technical specifications

Power Unit

Output voltage	4.7 to 12.5 V DC
USB jacks	2x 5 V, 1 A
Operating mode	Continuous operation
Dimensions (W x H x D)	100 x 118 x 37 mm
Weight	Approx. 350 g
Input voltage	15 V DC
Power intake	max. 40 W
Protection class	II
IP protection class	IP20

Power supply (E)116602

Voltage supply	100 to 240 V AC 50 to 60 Hz

4.3 Operating conditions

Ambient temperature	+10°C to +35°C +50°F to +95°F
Relative humidity	30% to 75%
Air pressure	500 hPa to 1060 hPa

4.4 Tattooing machine pin assignment

The tattooing machine is connected via a stereo jack plug (3-pin, 3.5 mm).

4.5 Accessories

The following accessories can be purchased from your local specialist retailer:

- Cheyenne foot switch
- Cheyenne tattooing machines
- Cheyenne handles
- Cheyenne safety cartridges
- Cable adapters
- Protective sleeves for the handle
- Protective sleeves for the drive and connection cable

5 Ready the device for operation

⚠ NOTICE

Damage caused by condensation

If the device is exposed to significant variation in temperature, e.g. during transport, condensate may form on the inside and cause damage to electronic components.

- ▶ Ensure that the device has reached ambient temperature before using it. If it was exposed to high temperature fluctuations, wait for at least 3 hours for every 10°C of temperature difference before putting it into operation.
- ▶ Only use the device at ambient temperatures of +10°C to +35°C (+50°F to +95°F).

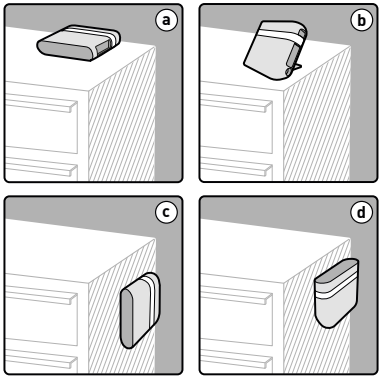
⚠ CAUTION

Trip hazard from cables

If cables are not laid properly, people can trip and get injured.

- ▶ Route all cables so that no-one can stumble over them or pull them accidentally.

5.1 Setting up or adhering the device



The device can be positioned on a level surface with the supplied metal plate (b). The magnetic surface on the rear side of

the device can be used to adhere it to metallic surface (a and d), e.g. on the leg of a table or cart. The device can be adhered in a vertical arrangement or rotated 90° (c).

Positioning the device on the metal plate:

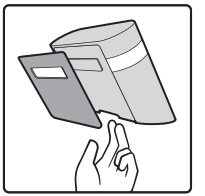
⚠ NOTICE

Device damage to instability

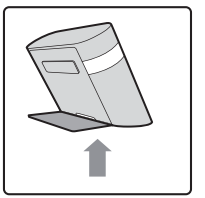
If the device is not positioned on the supplied metal plate, it can fall during operation and be damaged.

- ▶ Always use the metal plate in order to set up the device.
- ▶ Check whether the metal plate is adhered on the magnetic surface on the underside of the device and is firmly seated.
- ▶ Always place the device on the metal plate on a level and stable surface so that it cannot fall.

- ▶ Reach into the recess on the underside of the device and pull the metal plate off of the rear side of the device.

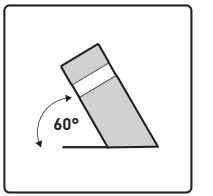


- ▶ Fasten the metal plate on the magnetic surface on the underside of the device. In the process, ensure that the edges of the metal plate align with the shape of the recess.



- ▶ Position the device with the metal plate on a clean, stable and level surface.

  The device also has a sturdy base for operation with the tilt angle.



Adhering the device with the magnetic surface:

The device can be adhered in a vertical arrangement or rotated 90°. Consequently, connected cables face downwards and can be routed more easily.

Since the device has a position sensor, the bar graph device rotates automatically. If the device is rotated 90°, the bar graph display moves upwards as the piercing frequency increases.

⚠ NOTICE

Damage to cables and jacks

If cables are already connected to the device, they can be kinked or damaged during assembly.

- ▶ Never kink the cable when adhering the device.
- ▶ Ensure that all jacks are freely accessible.

- ▶ Ensure that the device is disconnected from the voltage supply.
- ▶ Ensure that the metal plate is fastened on the rear side of the device.
- ▶ Adhere the device to a metallic surface with the magnetic surface.

5.2 Connecting the power supply

In order to establish the voltage supply:

- ▶ Insert the supplied, country-specific adapter in the recess in the power supply plug as illustrated below.
- ▶ Press in the adapter until it audibly engages.
- ▶ Plug the DC plug of the power supply plug into the jack for the mains adapter plug.
- ▶ Plug the power supply plug into the mains adapter jack.

  The light strip on the bar graph display illuminates orange.

5.3 Connecting the optional foot switch

- ▶ Plug the cinch plug of the optional foot switch into the jack for the foot switch.

5.4 Switching on the device

⚠ CAUTION

Risk of injury due to uncontrolled start-up of the tattooing machine

If the device is switch on, uncontrolled start-up of connected tattooing machines is possible, which can cause the machine to fall or cause personal injury.

- ▶ Only connect the tattooing machine after the device is switched on.

- ▶ Ensure that a tattooing machine is not connected to the device.
- ▶ Press the **Device ON/OFF** button.

  The bar graph display in the light strip shines white.

  The bar graph display shows the last adjusted piercing frequency.

5.5 Connecting the tattooing machine

- ▶ Ensure that device is switched on.
- ▶ Plug the jack plug of the connecting cable for tattooing machine completely into the jack for the tattooing machine.

6 Using the device

6.1 Disinfecting the device

⚠ NOTICE

Damage caused by fluid

If cleansers or disinfectants enter the device or the power supply plug or their jacks or plugs, a short-circuit can occur.

- ▶ Never immerse the device or power supply plug in cleansers or disinfectants.
- ▶ Never run the device or power supply plug in autoclaves or ultrasonic baths.

⚠ NOTICE

Product damage caused by non-approved cleaning agents or disinfectants

Cleaning agents or disinfectants that are not compatible with the materials of the device can damage its surface.

- ▶ Always use cleaning agents and disinfectants that are approved, i.e. that comply with stipulations in your country.
- ▶ Pay attention to compatibility of materials when selecting cleaning agents and disinfectants (see section 7.1 on page 33).

- ▶ Disconnect the device from the voltage supply by pulling the power supply plug out of the socket.
- ▶ Check to determine whether there is visible soiling of the device. In such cases, perform the steps described in the chapter 7 on page 32.
- ▶ Wipe down the device, the metal plate, the power supply plug and the connecting cable with a soft cloth moistened with cleanser or disinfectant.

⚠ NOTICE

Limited functionality due to impairment of the gesture control

Air trapped between the protective film and the device surface can impair the function of the gesture control. Consequently, fault-free control of the tattooing machine cannot be guaranteed during operation.

- ▶ Only apply the self-adhesive protective plastic sheet while the device is switched off.
- ▶ Ensure that **no** air is entrapped between the self-adhesive protective plastic sheet and the device surface.
- ▶ Use a protective plastic sheet that is not permeable to infrared light.

- ▶ Cover the device with a self-adhesive protective plastic sheet.

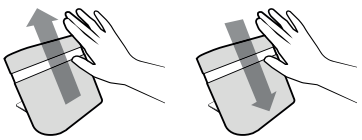
  The protective plastic sheet must be applied to the device surface without entrapped air.

6.2 Activating and deactivating the gesture control for the piercing frequency

The tattooing machine can be started or stopped, or the piercing frequency can be adjusted with the gesture control. The gesture control must first be activated with a release button to adjust the piercing frequency.

To enable the gesture control:

- ▶ Perform a vertical swiping movement at a distance of about 4 to 5 cm from bottom to top or from top to bottom.



The gesture control is deactivated automatically after 2 seconds without operation.

6.3 Setting the puncture frequency

⚠ CAUTION

Risk of injury due to high piercing frequency

If the piercing frequency is too high, the skin can be cut.

- ▶ Always start at a low piercing frequency.
- ▶ Please observe that the puncture frequency must suit to the characteristics of the customer's skin, the needle protrusion depth and the individual piercing depth when working, as well as the operating speed.

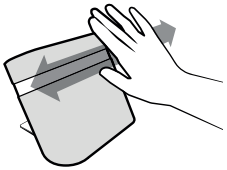
The device is automatically reset to the last piercing frequency each time it is switched on.

The piercing frequency can be adjusted using the non-contact gesture control. The current piercing frequency is shown with the increments in the bar graph display. A change of the bar graph display by one increment corresponds to an output voltage change of about 0.3 V.

The piercing frequency can be adjusted in 23 increments.

Adjusting the piercing frequency with the gesture control:

- ▶ Ensure that the gesture control is activated (see the chapter 6.2 on page 31).
- ▶ Hold your hand about 4 to 5 cm away from the movement sensors at the position at which you would like to adjust the piercing frequency.



The bar graph display follows the movement of the hand. The piercing frequency is increased the further you move your hand to the right. If the device is rotated 90°, move your hand from bottom to top in order to increase the piercing frequency.

6.4 Starting or stopping the tattooing machine

⚠ CAUTION

Risk of injury when operating the tattooing machine

If an unsecured tattooing machine is started, uncontrolled movement can occur due to vibrations, which can cause the machine to fall or cause personal injury.

- ▶ Hold the tattooing machine before you start it or place it in a suitable holder.

The tattooing machine can be started and stopped using the non-contact gesture control.

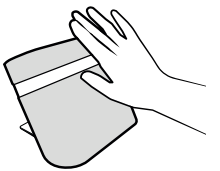
- ▶ Ensure that the voltage supply is connected (see the chapter 5.2 on page 29).
- ▶ Ensure that device is switched on (see the chapter 5.4 on page 29).
- ▶ Ensure that the tattooing machine is connected correctly (see the chapter 5.5 on page 29).
- ▶ Ensure that the device has a firm hold and is set up or adhered without risk (see the chapter 5.1 on page 27).

Starting and stopping the tattooing machine with the gesture control:

To start the tattooing machine:

- ▶ Hold your hand in front of the front side of the device at a distance of about 4 to 5 cm from the bar graph display for 2 seconds.

  The light strip shines white.



If the connected tattooing machine does not start:

- ▶ Observe chapter 10.1 on page 34.

To stop the tattooing machine:

- ▶ Hold your hand in front of the front side of the device at a distance of about 4 to 5 cm from the bar graph display for 2 seconds again.

  The light strip goes out.

6.5 Switching off the device

- ▶ Press the **Device ON/OFF** button. ⏻

  The light strip on the bar graph display illuminates orange.

  The bar graph display goes out.

7 Cleaning and maintaining the device

⚠ CAUTION

Risk of short circuits and risk of mild electric shocks

If the device is cleaned while the voltage is connected, there is a risk of minor electric shock and electronic damage to the device or power supply plug.

- ▶ Disconnect the device from the voltage supply before all cleaning and service work.

⚠ NOTICE

Damage caused by fluid

If cleansers or disinfectants enter the device or the power supply plug or their jacks or plugs, a short-circuit can occur.

- ▶ Never immerse the device or power supply plug in cleansers or disinfectants.
- ▶ Never run the device or power supply plug in autoclaves or ultrasonic baths.

⚠ NOTICE

Product damage caused by non-approved cleaning agents or disinfectants

Cleaning agents or disinfectants that are not compatible with the materials of the device can damage its surface.

- ▶ Always use cleaning agents and disinfectants that are approved, i.e. that comply with stipulations in your country.
- ▶ Pay attention to compatibility of materials when selecting cleaning agents and disinfectants (see section 7.1 on page 33).

7.1 Material compatibilities

- ▶ Wherever possible, use one of the following disinfectants:

Manufacturer	Product	Exposure time
Antiseptics	Big Spray 'new'	1 to 5 mins
Bode Chemie	Bacillol	30 s to 1 min
Ecolab	Incidin Foam	1 to 2 mins
Schülke & Mayr	Mikrozid Liquid	1 to 2 mins

Based on the following material compatibilities, you can assess which other cleaning agents and disinfectants are suitable.

The anodized aluminum components and seals of the tattooing machine are **resistant** to:

- Weak acids (e.g. boric acid ≤ 10%, acetic acid ≤ 10%, citric acid ≤ 10%)
- Aliphatic fluorocarbons (e.g. pentane, hexane)
- Most inorganic salts and their aqueous solutions (e.g. sodium chloride, calcium chloride, magnesium sulphate)

The anodized aluminum components and seals of the tattooing machine are **not resistant** to:

- Strong acids (e.g. hydrochloric acid ≥ 20%, sulphuric acid ≥ 50%, nitric acid ≥ 15%)
- Oxidizing acids (e.g. peracetic acid)
- Lyes (e.g. caustic soda, ammonia and all substances with a pH value > 7)
- Aromatic/halogenized fluorocarbons (e.g. phenol, chloroform)
- Acetone and benzene
- Ethanol

7.2 Disinfecting surfaces

Before and after each usage:

- ▶ Disinfect all surfaces of the device as described in the chapter 6.1 on page 30.

7.3 Cleaning surfaces

In the event of external contamination:

- ▶ Wipe down the device, the metal plate, the power supply plug and the connecting cable with a soft cloth moistened with cleanser or disinfectant.

8 Transport and storage conditions

⚠ NOTICE

Device damage caused by dropping it

If the device is dropped, it can be damaged.

- ▶ Always place the device on the metal plate or adhere it on a level and stable surface so that it cannot fall.
- ▶ If the device falls, perform a visual inspection of the components.
- ▶ Hand over the device to a specialist retailer for inspection if it exhibits any external signs of damage or if it does not function normally.

- ▶ Always transport the device and its accessories in the original packaging.
- ▶ Fasten the metal plate of the device for transport on the rear side.
- ▶ Always store the Power Unit and accessories under the following conditions:

Ambient temperature	-40°C to +40°C -40°F to +104°F
Relative humidity	30% to 75%
Air pressure	500 hPa to 1060 hPa

9 Disposal of equipment

▶  Dispose of the device and accessories bearing the following designation in accordance with the applicable regulations for used electronic equipment (WEEE Directive 2012/19/EU). If necessary, consult the specialist retailer or the responsible authorities to learn about applicable regulations for used electronic equipment.

10 Troubleshooting

10.1 Risk of injury when lifting the tattooing machine

If you hear a signal tone when you start the tattooing machine:

- ▶ Ensure that a tattooing machine is not connected to the device (see the chapter 5.5 on page 29).
- ▶ Make sure that you only use the Cheyenne HAWK or SOL series tattooing machines. Otherwise, the device can be overloaded

If you hear a signal tone while the tattooing machine is running and the tattooing machine stops:

- ▶ Ensure that the handpiece cable of the tattooing machine is connected correctly.

If a signal tone sounds three times:

- ▶ Ensure that you only use the power supply included in the scope of delivery.
- ▶ Disconnect the device from the voltage supply by pulling the power supply plug out of the socket.
- ▶ Re-connect the voltage supply.
- ▶ If this fault occurs frequently, fall all steps in the chapter 10.2 on page 35.

10.2 Eliminating malfunctions of the device

- ▶ First, disconnect the device from the voltage supply, from the optional foot switch and from the tattooing machines.
- ▶ Check all connections and re-connect the components.
- ▶ Check the functions of the device once again.
- ▶ If functional problems persist, and if you have any questions or complaints, please contact the specialist retailer responsible.
- ▶ To obtain information about our current offers, the selection of safety cartridges and accessories, please visit our website www.cheyennetattoo.com.

11 Manufacturer declarations

11.1 Warranty

With this device, you have purchased a high-quality branded product. The reliability of this device is assured through application of the latest inspection technologies and certification. MT.DERM GmbH is certified in acc. with:

- DIN EN ISO 13485:2012 (quality management system for medical products)

For this product, the statutory warranty period applies to radio interference problems resulting from defects in material and workmanship.

We guarantee sterility for the tattoo module with delivery of sealed and undamaged packaging. For complaints relating to safety cartridges, please advise us of the batch number printed on the label.

The warranty does not apply to the following damage:

- Accident, misuse, abuse or alteration
- Servicing by unauthorized persons
- Connection to inappropriate power sources
- Use with unauthorized accessories
- Use for anything other than indicated in this instruction for use
- Damage arising from the ingress of fluids or dirt into the drive device interior or power supply plug.

MT.DERM GmbH or its authorized distributors shall not be responsible for any incidental, special or consequential damages resulting from the use of this product. All implied warranties, including but not limited to implied warranties of fitness and merchantability, are limited in duration to 2 years from date of original purchase. This warranty gives you specific legal rights, and you may also have other rights that vary from country to country. Some countries do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so some of the above limitations and exclusions may not apply to you. This warranty is given in lieu of all other warranties, written or oral, whether expressed by affirmation, promise, description, drawing, model or sample. All warranties other than this one, whether expressed or implied, including implied warranties of merchantability and fitness for a purpose are hereby disclaimed.

11.2 Declaration of Conformity

The manufacturer	MT.DERM GmbH Gustav-Krone-Str. 3 14167 Berlin, Germany
Product:	Tattooing machine
	Product name: Power Unit III
	Article description: B50401, B50402
EMC directive:	2014/30/EU
Low-voltage Directive:	2014/35/EU
RoHS Directive:	2011/65/EU

The following harmonized standards were applied:

DIN EN 60335-1:2012-10	Household and similar electrical appliances – Safety – Part 1: General requirements
DIN EN 61000-6-1:2007-10	Electromagnetic compatibility (EMC) Part 6-1: Generic standards - Immunity for residential, commercial and light-industrial environment
DIN EN 61000-6-3:2011-09	Electromagnetic compatibility (EMC) Part 6-3: Generic standards - Immunity for residential, commercial and light-industrial environment
DIN EN 1037:2008-11	Safety of machinery - Prevention of unexpected start-up
DIN EN ISO 12100:2011-03	Safety of machinery - General principles for design - Risk assessment and risk reduction
DIN EN 82079-1:2013-06	Preparation of instructions for use - Structuring, content and presentation - Part 1: General principles and detailed requirements

Authorized representative for compiling the relevant technical documentation:

Dr. Andreas Pachten, MT.DERM GmbH, Documentation Officer

This declaration is issued on behalf of the manufacturer by:

Berlin, dated 02/11/2020, Jörn Kluge

Signature of CEO or deputy

Original