



P1 HD VRX

Standard Version
FPV digital video receiver



Read this manual before first use and keep it. Power the receiver only from a 5.5-26.4 V source and use only channels permitted in your country.

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1. Safety instructions

Read the whole manual before first use and keep it for future reference. Hand it over together with the product to any subsequent user.

1.1 General principles

- The product is a ground video receiver for FPV. It is not a toy and is not intended for children. Keep it out of the reach of children.
- Protect the receiver from rain, moisture, dust and direct sunlight. Do not use it in an environment with flammable gases or vapours.
- Do not cover the ventilation grille on the front of the device and do not place the receiver on a soft surface that would restrict heat dissipation.
- Do not disassemble or modify the receiver. Stop using it after a fall, after liquid has entered it, or if the housing or cables are visibly damaged.
- Always fit the antenna before switching the power on. Operating the device without an antenna may damage the radio-frequency section.
- Do not force the antennas or cables into position during operation and never carry the receiver by a connected cable.

1.2 Power supply and battery

- Power the receiver only from a source within **5.5–26.4 V** connected to the DC port. A higher voltage will destroy the device.
- When powering the receiver from a Li-Po battery, observe the polarity and use only undamaged batteries with intact wrapping and connector.
- A fully charged Li-Po cell has **4.20 V** (LiHV 4.35 V). Stop discharging at **3.5 V per cell** at the latest and charge to **3.8 V per cell** for storage.
- Charge batteries under supervision, on a non-flammable surface and with a charger intended for the given type and cell count.
- Do not use a swollen, mechanically damaged or overheated battery.

1.3 Care and storage

- Stop using the device as soon as possible after the low voltage alarm sounds – otherwise it may shut down suddenly or the battery may be damaged.
- Clean the housing and the screen with a soft, dry cloth. Tissues and coarse cloths will scratch the surface.
- Do not store the receiver together with keys, tools or sand. Protect it from squeezing, dropping and scratching with sharp objects.

2. Product description

2.1 About the product

The P1 HD VRX (Standard Version) is a digital high-definition video receiver made by BETAFPV. It is built for the ArtLyne digital ecosystem and provides long-range video transmission with low latency and a crisp HD image. The mini HDMI output makes it easy to connect an external display. The receiver keeps the minimalist design and intuitive operation typical of BETAFPV.

2.2 Specification

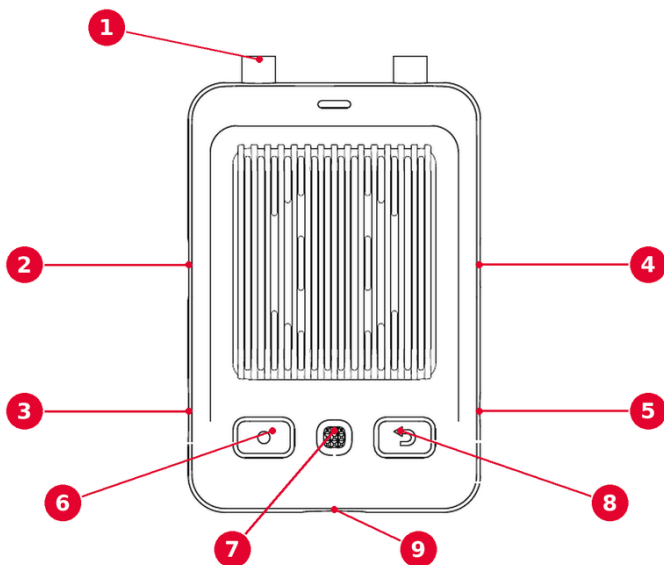
Product name	P1 HD VRX (Standard Version)
Dimensions	85.6 × 54.8 × 30.9 mm (excluding antenna)
Weight	70.5 g (excluding antenna)
Memory card slot	Micro SD, max. 1 TB
Frequency	5.3–5.8 GHz
Effective isotropic radiated power (e.i.r.p.)	FCC: <23 dBm; CE: <14 dBm
Ports	Type-C; mini HDMI; Micro SD card slot; DC 5.5 × 2.1 mm
Antenna connector	RP-SMA Female (external thread, inner hole)
Transmission resolution	1080p, 60 fps
Bitrate	up to 25 Mbps
Transmission range	> 400 m
Input voltage	5.5–26.4 V

2.3 Package contents

- 1× P1 HD VRX (Standard Version) receiver
- 2× 5.8 GHz antenna
- 1× DC5521 / XT60 power cable
- 1× mini HDMI / HDMI cable
- 1× user manual

✱ **The package contents are stated by the manufacturer on the product page; individual deliveries may differ.**

3. Controls and ports



Layout of the ports and controls

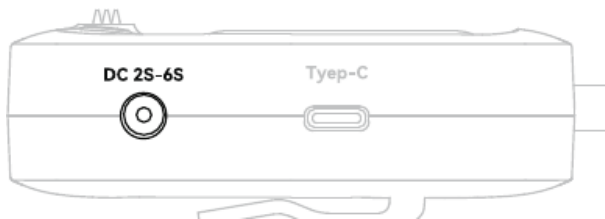
- ① **Antenna connectors** – RP-SMA Female (external thread, inner hole).
- ② **Mini HDMI port** – video output to an external display; used for real-time image transmission.
- ③ **Micro SD card slot** – cards up to 1 TB.
- ④ **Type-C port** – connection to a computer to manage files on the Micro SD card.
- ⑤ **DC port** – power input, voltage range 5.5–26.4 V.
- ⑥ **Record button** – press to start or stop DVR recording.
- ⑦ **5D button** – press to open the main menu, toggle up, down, left and right to navigate, press to confirm the selection.
- ⑧ **Back button** – returns to the previous setting.
- ⑨ **1/4" mounting nut** – on the bottom side, for tripod mounting.

Use a U3/V30 or higher SDXC card to avoid data loss or recording errors.

4. Power supply

4.1 Connecting the power source

The P1 HD VRX (Standard Version) is powered by an external battery through the DC 5.5 power port. It supports 2-6S Li-Po batteries within an operating voltage range of 5.5-26.4 V.



DC port for a 2-6S battery and the Type-C port

4.2 Low voltage alarm

The built-in buzzer emits a warning beep in the following cases:

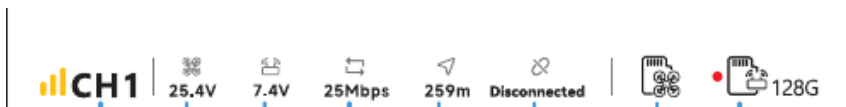
- **2S** power input – the overall voltage falls below 5.5 V,
- **3S, 4S or 6S** power input – any individual cell drops below 3.5 V.

❖ When powering the receiver from a 2S battery, monitor the voltage closely to prevent over-discharge. If the low voltage alarm triggers, charge the battery promptly – otherwise the screen may shut down suddenly due to insufficient power.

5. Getting started

5.1 Home screen

After connecting an external display through the mini HDMI port, powering the receiver on and completing the startup, the home screen appears. Its bottom edge shows the key parameter indicators.



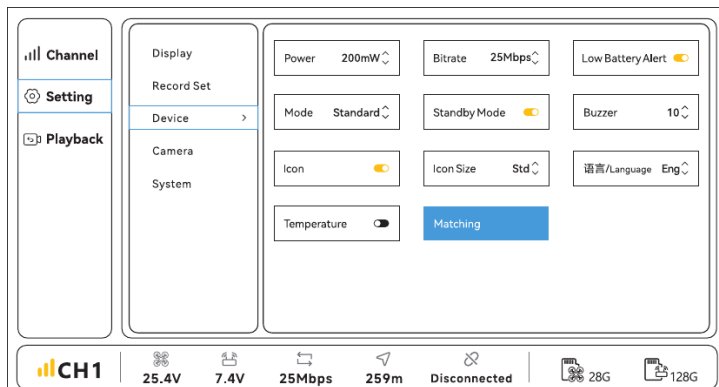
Indicators along the bottom edge of the home screen

- **Current channel** – the currently set channel.
 - **Air unit voltage** – real-time voltage of the unit on the model.
 - **Ground unit voltage** – real-time voltage of the receiver.
 - **Bitrate** – real-time transmission bitrate.
 - **Distance** – distance between the model and the ground unit.
 - **Connection status** – current status of the link to the video transmitter.
 - **Air unit SD card** – status and remaining capacity of the card in the unit on the model.
 - **Ground unit SD card** – status and remaining capacity of the card in the receiver.
- ❖ **The card icon shows its status: grey – no card inserted, white – card detected, flashing red dot – recording in progress, no red dot – standby, full – card storage full.**

5.2 Binding to the video transmitter

Before binding, switch on both the air unit and the ground unit, keep them within two metres of each other and make sure all devices run the latest firmware.

- ① Select the binding item (*Matching*) in the display menu and press the bind button on the model. During binding, the LEDs on the model and on the receiver flash green quickly and the receiver beeps.
- ② Once binding is successful, the LEDs on the model and on the receiver turn solid green, the receiver buzzer emits a single long beep and the live video feed appears on the display.



The binding item in the Setting → Device menu

6. Recording and playback

6.1 Recording

The receiver supports recording to a Micro SD card. Once a card is inserted, its icon changes from grey to white, which means the card has been successfully detected. After the link is established and the image appears, start recording with the record button – a flashing red dot appears next to the card icon.



The flashing red dot indicates that recording is active

After the flight you must stop the recording by pressing the record button again, otherwise the footage may not be saved.

6.2 Playback

Enter the playback interface and navigate through the list of recordings with the 5D button. Short-press to open the selected recording, long-press to delete the file. During playback, press the 5D button to pause and play, and toggle left and right to rewind or fast-forward.

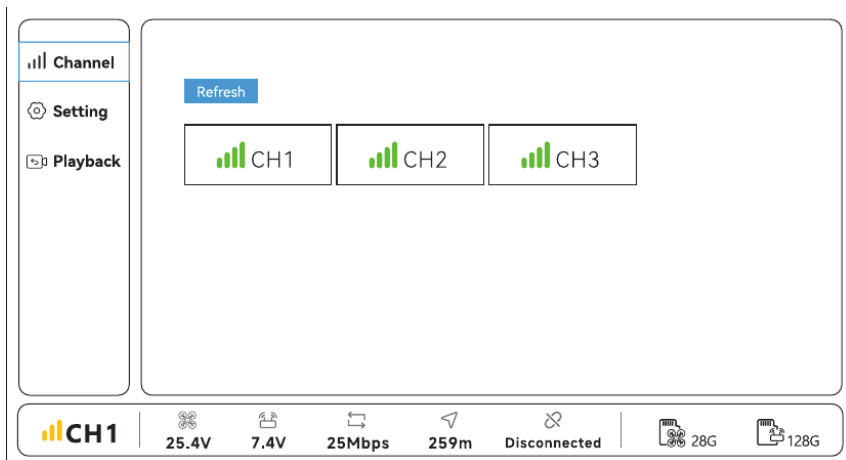
*** We recommend formatting the Micro SD card before using it in this device for the first time - this ensures more stable performance. Formatting permanently and irreversibly deletes all data on the card.**

7. Settings menu

7.1 Operating the menu

Press the 5D button to open the settings menu of the receiver, where you can view and configure its parameters. Toggle the 5D button up, down, left and right to move between the items; the back button returns you one level up.

7.2 Channels



Channel interface

In Standard Mode, 3 channels are available; in Racing Mode there are 16 channels. After entering the channel interface, select *Refresh* to refresh the signal strength information for all frequency bands.

Channel	Frequency	Range
1	5758 MHz	5753-5763 MHz
2	5788 MHz	5783-5793 MHz
3	5828 MHz	5823-5833 MHz

Standard Mode channels

The main difference between the two modes is the number of channels. In an environment with heavy Wi-Fi traffic (typically 5.725-5.850 GHz) the range may be shorter and the transmission more susceptible to interference; for such cases the manufacturer recommends switching to Racing Mode and selecting a channel outside the congested part of the band.

Channel	Frequency	Range
1	5658 MHz	5653-5663 MHz
2	5695 MHz	5690-5700 MHz
3	5732 MHz	5727-5737 MHz
4	5769 MHz	5764-5774 MHz
5	5806 MHz	5801-5811 MHz
6	5843 MHz	5838-5848 MHz
7	5880 MHz	5875-5885 MHz
8	5917 MHz	5912-5922 MHz
9	5620 MHz	5615-5625 MHz
10	5580 MHz	5615-5625 MHz
11	5540 MHz	5535-5545 MHz
12	5500 MHz	5495-5505 MHz
13	5460 MHz	5455-5465 MHz
14	5420 MHz	5415-5425 MHz
15	5380 MHz	5375-5385 MHz
16	5340 MHz	5335-5345 MHz

Racing Mode channels

✳ **For channel 10 the manufacturer states the same range as for channel 9 (5615-5625 MHz); the figure is taken from the original manual unchanged.**

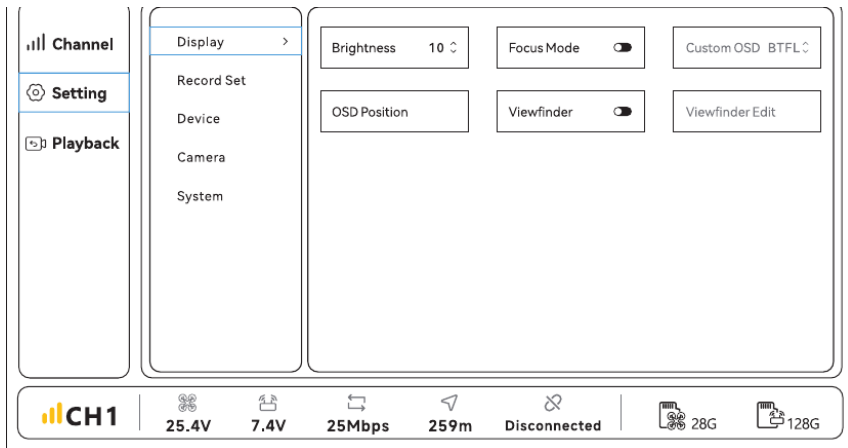
7.3 Frequency bands and permitted power

European Union legislation applies in all Member States, but the national conditions for the use of frequencies differ from country to country. The information in this chapter describes the situation in the Czech Republic. If you operate the receiver in another country, follow the regulations of the state in which you use it.

- The manufacturer states a frequency range of **5.3-5.8 GHz** and an effective isotropic radiated power of **<14 dBm (CE)**, or <23 dBm (FCC).
- In the Czech Republic, only the **5725-5875 MHz** band may be used for this video transmission without an individual authorisation, with an e.i.r.p. of no more than **25 mW** – general authorisation of the Czech Telecommunication Office No. VO-R/10 (current version VO-R/10/05.2025-5).
- **All three Standard Mode channels** fall within the permitted band.
- Of the Racing Mode channels, only **channels 3 to 6** (5727–5848 MHz) lie within the permitted band. The other channels fall outside it and must not be used in the Czech Republic – including channel 16 (5335-5345 MHz), which the manufacturer recommends as a way to escape Wi-Fi interference.
- In the Czech Republic the 5150-5350 MHz and 5470-5725 MHz bands are reserved for wireless access systems (WAS/RLAN) under the conditions of general authorisation No. VO-R/12 and cannot be used for video transmission from a model.

The user is responsible for the choice of channel and for compliance with the conditions of operation. Setting a channel outside the permitted band breaches the conditions for the use of radio frequencies.

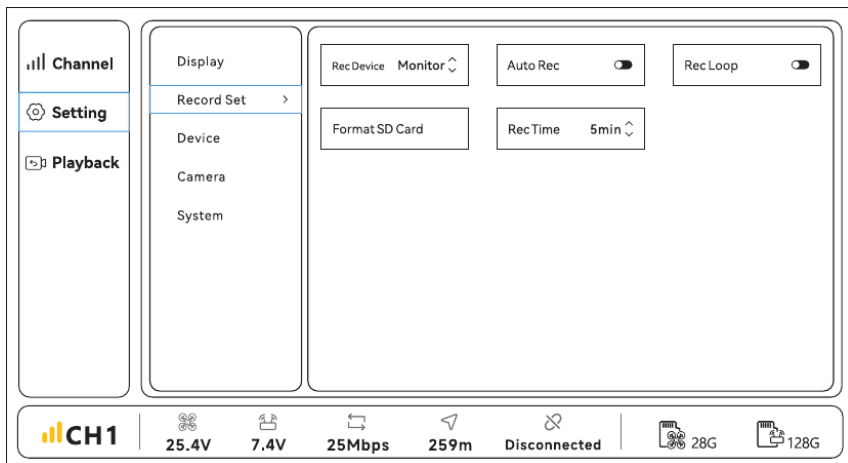
7.4 Display



Display interface

In the *Display* interface you can set the screen brightness, the focus mode (*Focus Mode*), the custom OSD (*Custom OSD*), the OSD position (*OSD Position*) and the viewfinder (*Viewfinder*) including its editing.

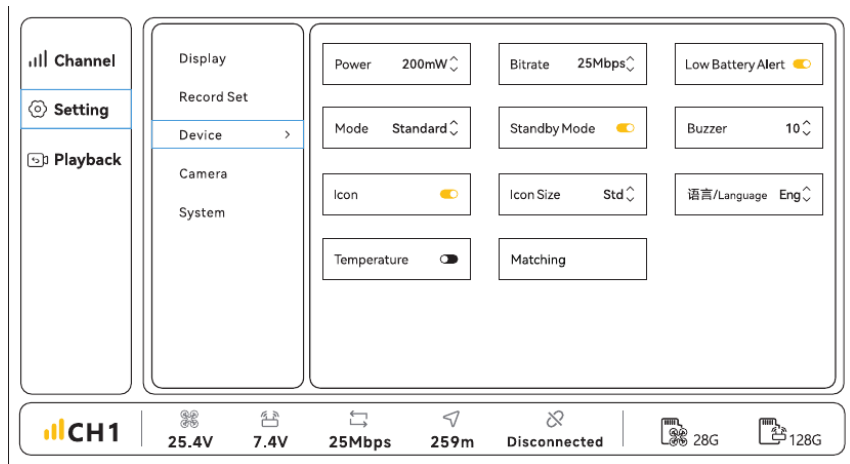
7.5 Record Set



Record Set interface

In the *Record Set* interface you can configure recording and the memory card – the device recorded from (*Rec Device*), automatic start of recording (*Auto Rec*), loop recording (*Rec Loop*), the length of a recording (*Rec Time*) and card formatting (*Format SD Card*).

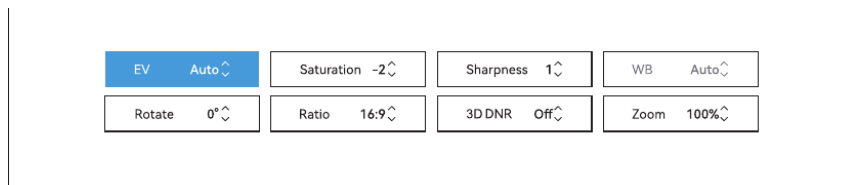
7.6 Device



Device interface

In the *Device* interface you can set the parameters of the device - transmission power (*Power*), bitrate (*Bitrate*), low battery alert (*Low Battery Alert*), channel mode (*Mode*), standby mode (*Standby Mode*), buzzer volume (*Buzzer*), icon display and size (*Icon*, *Icon Size*), language (*语言/Language*), temperature display (*Temperature*) and binding (*Matching*).

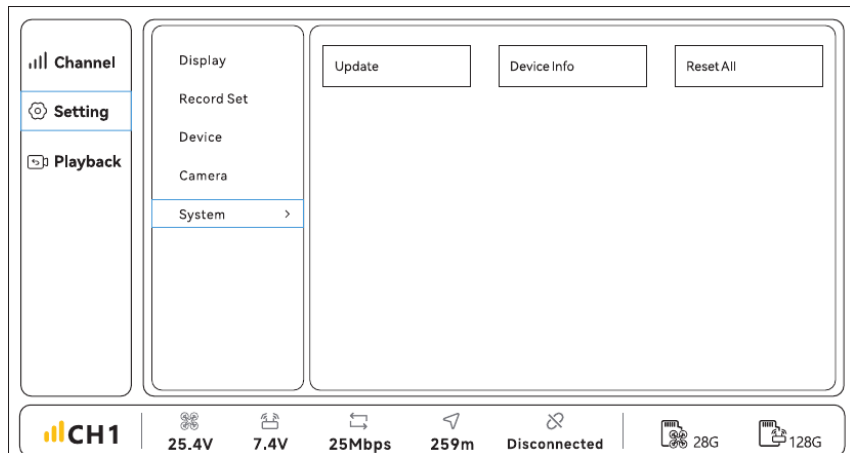
7.7 Camera parameters



Camera parameter interface

Press the *Camera* button to open the camera parameter menu. You can set the exposure compensation (*EV*), saturation (*Saturation*), sharpness (*Sharpness*), white balance (*WB*), image rotation (*Rotate*), aspect ratio (*Ratio*), noise reduction (*3D DNR*) and zoom (*Zoom*).

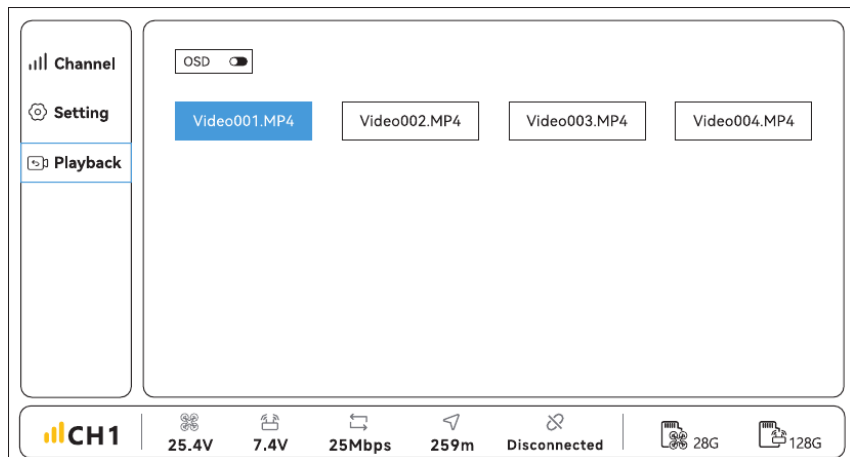
7.8 System



System interface

In the *System* interface you can view the device information (*Device Info*), start an update (*Update*) or restore the default settings (*Reset All*).

7.9 Playback



Playback interface

In the *Playback* interface you can review the recordings you have made. The *OSD* switch enables or disables showing the air unit data in the recorded video.

7.10 Firmware update

- ① Copy the firmware for the air unit and the ground unit to an SD card and insert the card into the ground unit.
- ② Power on both the air unit and the ground unit and make sure they are connected.
- ③ Select *Setting* → *System* → *Upgrade* → *Start*; both units are upgraded at the same time.
- ④ After a successful upgrade, restart both units.
 - Follow the steps exactly, otherwise the upgrade may fail.
 - The whole upgrade takes some time – wait until it is complete.
 - Make sure the device is sufficiently powered before the upgrade and do not disconnect the power during it.
 - After the upgrade the settings are reset to the default values; configure them again.
 - To upgrade only the air unit or only the ground unit, copy just the corresponding firmware to the card.

The current firmware and the release notes for the individual versions are available on the manufacturer's support page: support.betafpv.com.

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorاما.cz
Phone	+420 252 252 098
Website	www.rotorاما.cz

8.2 Product conformity



- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorاما.cz.
- **Product identification:** the type designation P1 HD VRX (Standard Version) and the serial number are given on the rating label on the device.

8.3 Disposal of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste.**
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also <https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu>.

9. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 8.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.