

Teradek 10-1857

Teradek Spark 4K Receiver Instruction Manual

Model: 10-1857

1. INTRODUCTION

The Teradek Spark 4K Receiver is designed for high-quality, ultra-low latency wireless video reception. This device supports up to 4Kp30 resolution, ensuring clear and precise video for professional monitoring and broadcasting applications. With a reliable wireless range and robust security features, the Spark 4K Receiver integrates seamlessly with Spark 4K transmitters to provide an efficient wireless video solution.

2. PRODUCT FEATURES

- **Unmatched Resolution:** Supports up to 4Kp30 for crystal-clear video.
- **Ultra-Low Latency:** Experience near-instantaneous video transmission with less than 0.001 second delay.
- **Reliable Wireless Range:** Transmit video up to 500 feet line of sight.
- **Secure Wireless Connection:** Features AES-128 encryption and RSA-1024 key exchange.
- **Versatile Compatibility:** Seamlessly integrates with Spark 4K transmitters.



Figure 2.1: Teradek Spark 4K units showcasing core features.

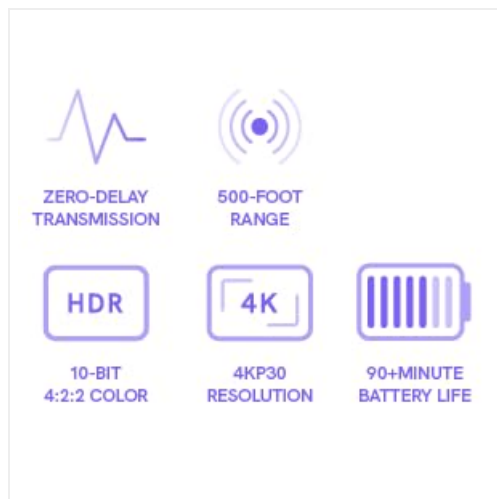


Figure 2.2: Visual representation of key performance features.

3. WHAT'S IN THE BOX

Your Teradek Spark 4K Receiver package should contain the following items:

- Teradek Spark 4K Receiver Unit
- Power Adapter (6-18V DC)
- USB-C Cable
- HDMI Cable
- Quick Start Guide (this manual)

4. DEVICE OVERVIEW

4.1. Physical Dimensions and Weight



Figure 4.1: Dimensions and weight of the Spark 4K Receiver.

4.2. Ports and Controls

Familiarize yourself with the ports and controls on your Spark 4K Receiver:



Figure 4.2: Rear panel of the Spark 4K Receiver with port labels.

- **HDMI Out:** Connects to your display or monitor.
- **6-18V DC:** Primary power input.
- **Type-C:** USB-C port for power or data.
- **Resync Button:** Used to re-establish connection with the transmitter.
- **Power On/Off Switch:** Toggles the device power.

4.3. Mounting Points



Figure 4.3: Bottom of the Spark 4K Receiver with mounting options.

The receiver features multiple mounting points for flexible integration into your setup:

- Two M3 mounting points
- One 1/4-20 mounting point

5. SETUP INSTRUCTIONS

Follow these steps to set up your Teradek Spark 4K Receiver:

1. **Power Connection:** Connect the provided power adapter to the 6-18V DC input on the receiver. Alternatively, you can use a USB-C power source.
2. **Display Connection:** Connect an HDMI cable from the HDMI Out port on the receiver to the HDMI input of your monitor or display device.
3. **Power On:** Flip the Power On/Off switch to the 'On' position. The OLED screen on the receiver will illuminate.
4. **Pairing with Transmitter:** Ensure your Spark 4K Transmitter (sold separately) is powered on and transmitting. The receiver will automatically attempt to link with the nearest compatible transmitter. If a connection is not established, press the Resync

button on both the transmitter and receiver.

5. **Verify Connection:** Once connected, the OLED screen on the receiver will display "RECEIVING VIDEO" and indicate the link status (e.g., "Link: Good").

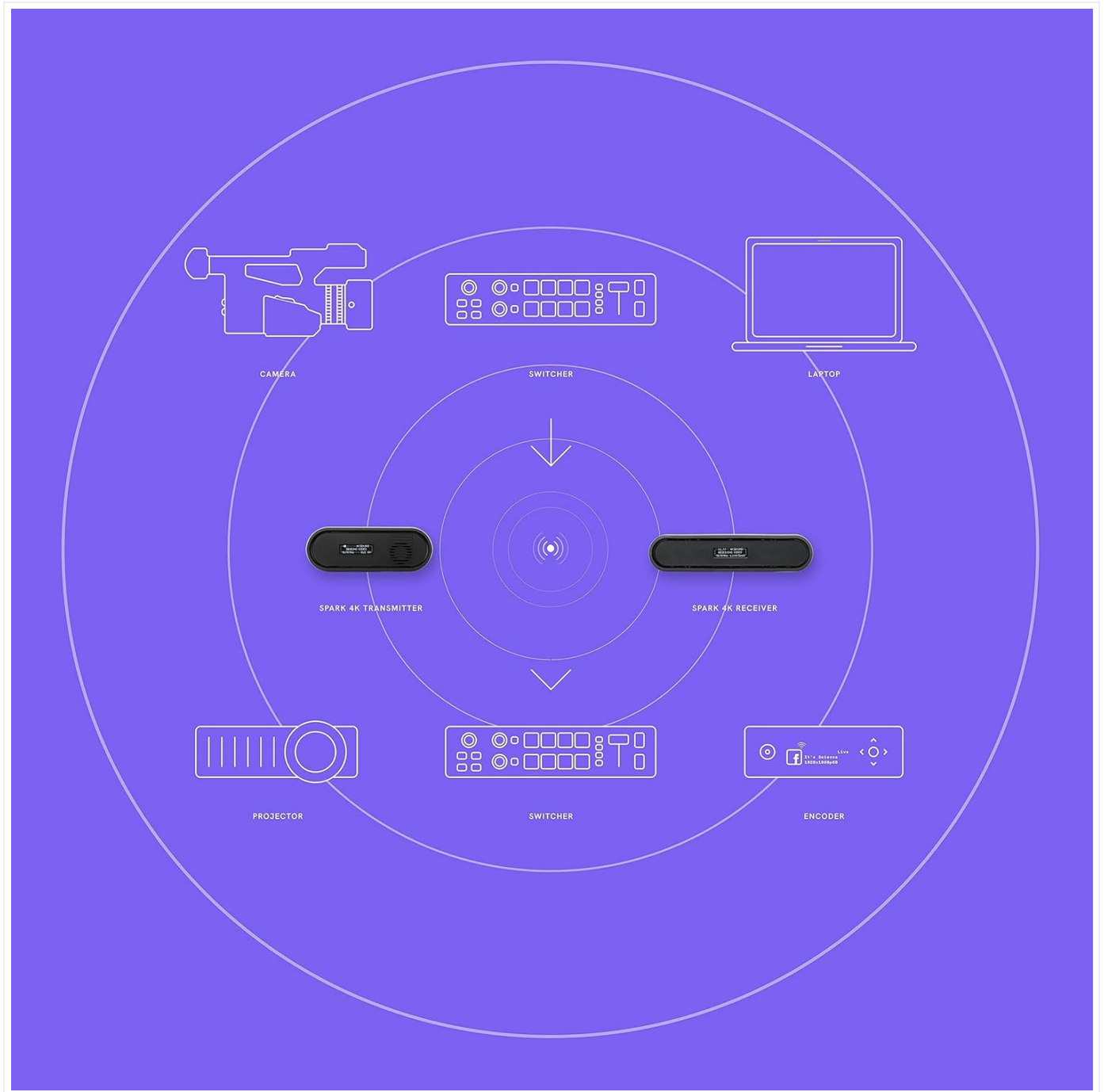


Figure 5.1: Typical setup diagram for the Spark 4K wireless video system.

6. OPERATING INSTRUCTIONS

Once the receiver is set up and linked with a transmitter, it will continuously receive the video signal. The OLED screen provides real-time status information.

6.1. Monitoring Status

The OLED display on the front of the receiver shows critical information:

- **Battery Level:** Indicates remaining power if operating on battery (via USB-C power bank).
- **Video Resolution/Framerate:** Displays the incoming video format (e.g., 4K30, 1080p50).

- **Frequency:** Shows the current operating frequency (e.g., 5670 MHz).
- **Link Status:** Confirms if a stable connection is established (e.g., "Link: Good", "No Link").



Figure 6.1: Receiver OLED screen showing active video reception status.

6.2. Using the Teradek Launchpad App

The Teradek Launchpad app (available for iOS, iPadOS, Android, and OSX) allows for advanced control and monitoring of your Spark 4K system. Connect your mobile device or computer to the Spark 4K's Wi-Fi network to access features such as:

- Detailed signal strength and quality metrics.
- Channel selection and frequency management.
- System configuration and firmware updates.



Figure 6.2: Teradek Launchpad app compatibility and control features.

Video 6.1: Overview of the Teradek Spark 4K Wireless Video System, demonstrating its features and connectivity options for both transmitter and receiver units.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your Spark 4K Receiver.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid using liquid cleaners or solvents.
- **Storage:** When not in use, store the receiver in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Firmware Updates:** Regularly check for firmware updates via the Teradek Launchpad app or the official Teradek website to ensure you have the latest features and performance enhancements.
- **Cable Management:** Ensure all cables are securely connected and not under undue strain to prevent damage to ports.

8. TROUBLESHOOTING

If you encounter issues with your Spark 4K Receiver, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No video on display	Receiver not powered on; HDMI cable loose/faulty; Transmitter not sending signal; Incorrect input selected on display.	Ensure receiver is powered on. Check HDMI cable connections. Verify transmitter is active. Select correct HDMI input on your display.
"No Link" displayed on OLED	Transmitter out of range; Interference; Transmitter not powered on; Pairing issue.	Move receiver closer to transmitter. Minimize obstructions. Ensure transmitter is powered. Press the Resync button on both units.
Video stuttering or dropouts	Weak signal; High interference; Obstructions.	Reduce distance between units. Clear line of sight. Change wireless channel via Launchpad app if interference is suspected.
Device not powering on	Power cable not connected; Faulty power adapter/USB-C cable.	Check power connections. Try a different power outlet or USB-C cable/power bank.

9. SPECIFICATIONS

Feature	Specification
Brand	Teradek
Model Number	10-1857
Connectivity Technology	HDMI
Connector Type	RCA, USB (USB-C)
Resolution	4K (up to 4Kp30)
Item Weight	6.6 Ounces (187g)
Wireless Range	Up to 500' line of sight
Latency	Less than 0.001 second
Encryption	AES-128, RSA-1024 key exchange
Power Input	6-18V DC, USB-C
UPC	818264027073

10. WARRANTY AND SUPPORT

Teradek products are designed for reliability and performance. For specific warranty information, please refer to the warranty card included with your product or visit the official Teradek website. For technical support, troubleshooting assistance, or to download the latest firmware and software, please visit the Teradek support portal or contact their customer service.

- **Online Support:** www.teradek.com/support
- **Product Registration:** Register your product online to receive updates and streamline support.

