



## TFN RS3 Thermal Wire Stripper



### Product Introduction

The RS3 Thermal Wire Stripper is a precision tool specifically designed for professionals in the electronics, communications, and fiber optics industries. Unlike traditional mechanical strippers, the RS3 utilizes advanced four-gear temperature control technology. It precisely applies heat to cleanly remove insulation layers without any risk of damaging the internal conductor. Built with a durable full aluminum alloy body, it combines industrial-grade durability with a sleek, ergonomic grip. It features a built-in hidden drop cable stripper and easy-to-maintain replaceable blades. The RS3 also incorporates modern convenience with a Type-C charging port, making recharging effortless anywhere. Whether handling fiber optics, enameled wire, or coaxial cable, the RS3's intelligent safety features (such as auto shut-off and overheat protection) ensure every operation is safe, efficient, and reliable.

### Product Key Selling Points

Precise Four-Gear Temperature Control for Various Materials

Achieve impeccable stripping results on a wide variety of insulation materials. The RS3's adjustable temperature control system allows you to precisely match the heat to the task, whether it's sensitive fiber optics or standard PVC insulation. This effectively prevents conductor melting, wire fraying, or damage to internal components, ensuring a flawless, professional finish every time. This feature is crucial for applications demanding high signal integrity, such as network installations and aerospace manufacturing.

Full Aluminum Alloy Body for Durability and Comfort

Experience the perfect combination of durability and comfort. The RS3 features a full aluminum alloy body, abandoning the cheap feel and fragility of plastic tools. It offers exceptional longevity and a premium texture while remaining lightweight. Its ergonomic contour ensures the tool fits perfectly in your hand, effectively reducing wrist fatigue and strain during repetitive tasks, allowing for longer, more productive work sessions without discomfort.



Integrated Multi-Functionality

The RS3's functionality goes far beyond simple wire stripping. It features a convenient hidden drop cable stripper for quickly removing the outer sheath of outdoor fiber optic cables, eliminating the need to search for another tool. Additionally, an innovative built-in alcohol cleaning function for the needle body allows you to clean the heating elements at any time, ensuring consistent performance and extending tool life. This all-in-one design streamlines your workflow, keeps your workspace tidy, and keeps projects moving smoothly.

Smart Maintenance for Long-Lasting Performance

The RS3 is designed for easy maintenance and long-term use. Its blades are easily replaceable, avoiding the hassle and cost of buying a new tool when the blades wear out. The tool features a modern mainstream Type-C charging port, supporting fast, universal charging with a single cable. Intelligent safety features, including auto shut-off, overheat protection, and low battery reminders, protect both the user and the tool, ensuring safe and uninterrupted operation.

Comprehensive Standard Configuration, Ready to Use Out of the Box

You receive everything you need to start working right out of the box. The standard configuration includes the RS3 thermal stripper unit, a Type-C power charger set, and essential accessories like a cleaning brush and a general-purpose cleaning towel. This thoughtful packaging ensures you have the tools for immediate operation and basic maintenance, making it the ideal choice for both experienced technicians and hobbyists seeking a professional-grade setup.

### Product Specifications

Model	RS3
Material	High-density ABS & Full Aluminum Alloy Body
Color	Black
Primary Function	Thermal wire stripping with four-gear temperature control
Design Feature	Ergonomic design
Power Interface	Type-C Charging Port
Safety Features	Auto Shut-off, Overheat Protection, Low Battery Reminder
Special Features	Hidden drop cable insulation stripper
	Built-in alcohol cleaning function for the needle body
	Replaceable blades
Standard Configuration	Multifunctional holder *1
	Power charger set (Type-C / 5V 2A) *1
	Cleaning brush *1
	General-purpose cleaning towel *1

### Applications & Pain Points Solved



- **Intelligent Temperature Adaptation for Delicate Materials**

The core functionality of the RS3 lies in its intelligent four-gear temperature control system. This is not just about generating heat; it's about applying the right amount of heat. When working with sensitive materials like the thin enamel coating on fine copper magnet wire or the fragile cladding of optical fibers, excessive heat can be disastrous. The RS3 allows you to select the precise temperature gear, ensuring the insulation is cleanly vaporized or softened without transferring damaging heat to the conductor below. This results in a perfectly stripped wire with uncompromised signal integrity and conductivity, a critical factor in high-frequency data transmission and precision electronics assembly.

- **Ergonomic Excellence for Fatigue-Free Operation**

Professional technicians often spend hours on repetitive stripping tasks, which can lead to hand fatigue and repetitive strain injuries. The RS3 directly addresses this with its commitment to ergonomic design. The full aluminum alloy body is precisely contoured to fit the natural grip of the hand, distributing pressure evenly across the palm and fingers. The smooth, black finish provides a secure, non-slip grip. This thoughtful design minimizes muscle effort and joint stress, allowing you to maintain precision and speed throughout the workday. It transforms a strenuous task into a comfortable, efficient operation, ultimately boosting productivity and reducing the risk of long-term physical discomfort.

- **Integrated Workflow with Two Hidden Features**

The RS3 enhances efficiency by consolidating multiple tools into one. The hidden drop cable stripping function is a standout feature. Outdoor fiber optic and coaxial cables often have a tough outer sheath. Instead of fumbling for a separate, bulky tool, the RS3 has a precision-ground notch ready to score and remove this outer layer quickly and safely. Furthermore, residue build-up on the heating elements is a common performance killer. The integrated alcohol cleaning function provides an instant solution. By simply engaging this feature, you can clean the needle body on the spot, removing carbonized insulation and ensuring every subsequent strip is as clean as the first. This seamless integration keeps your workflow smooth and uninterrupted.

- **Proactive Safety Management and Convenient Power Solution**

Safety and reliability are paramount in any workshop. The RS3 is equipped with a suite of smart protection features that work in the background. The auto shut-off function activates after a period of inactivity, preserving battery life and eliminating any worry about leaving a hot tool unattended. Overheat protection monitors the internal temperature of the device, preventing damage to the circuitry and ensuring consistent performance. The clear low battery reminder alerts you well in advance, so you never run out of power mid-task. Paired with the convenient Type-C charging port, which allows for charging from power banks, laptops, or standard wall adapters, the RS3 ensures you are always powered up, safe, and ready to work.

- **Easy Maintenance for Sustainable Performance**

The hallmark of a professional-grade tool is its longevity, and the RS3 is built to last. Recognizing that blades are a consumable item that dull over time, the RS3 features a replaceable blade system. This simple yet impactful design choice means you don't have to discard the entire



tool when the cutting edge wears out. A quick and easy replacement restores the tool to its original factory performance. This focus on easy maintenance not only saves you money in the long run but also reduces waste. The included cleaning accessories—a brush and towel—further simplify routine upkeep, ensuring your RS3 remains a reliable, high-performance asset in your toolkit for years to come.

## **Application Scenarios & Customer Pain Points**

### **1. Fiber Optic Termination for FTTH (Fiber to the Home):**

**Scenario:** A telecom technician is terminating delicate fiber optic drop cables at a customer's home.

**Pain Point Solved:** Using a mechanical stripper risks damaging the glass fiber, potentially causing microbends or cracks leading to signal loss. The RS3's precise temperature control gently heats and removes the tough outer coating and buffer layers without touching or stressing the fragile glass core, ensuring a clean end-face for optimal light transmission and a reliable high-speed internet connection.

### **2. Repairing Enameled Wires in Electric Motors:**

**Scenario:** A motor rewinding specialist needs to strip the thin enamel insulation from fine copper winding wires without damaging the conductor.

**Pain Point Solved:** Traditional scraping or abrasion can nick and reduce the cross-sectional area of the thin copper wire, creating a hot spot and potential failure point. The RS3's thermal action cleanly vaporizes the enamel coating, leaving the copper conductor perfectly intact and preserving its full current-carrying capacity for a durable, high-performance motor repair.

### **3. PCB Rework and Prototyping:**

**Scenario:** An electronics engineer needs to remove a damaged coaxial cable from a densely populated printed circuit board (PCB).

**Pain Point Solved:** Applying mechanical force with a standard stripper can lift pads or damage nearby components. The RS3's ergonomic precision tip and controlled heat allow for targeted thermal stripping of the cable insulation in situ, minimizing physical stress on the PCB and enabling safe, accurate rework on expensive or sensitive electronics.

### **4. Aerospace and Avionics Wire Harness Assembly:**

**Scenario:** A technician is assembling a wire harness for an aircraft, which requires stripping Teflon or other high-performance insulation.

**Pain Point Solved:** High-performance insulation is tough and often requires excessive force to strip mechanically, risking conductor damage. The RS3's adjustable high-temperature gears can cleanly melt or soften even the most stubborn insulations. The overheat protection ensures the tool itself operates safely in a sensitive environment, and the clean cut guarantees signal integrity for critical flight instruments.

### **5. Hobbyist Drone Building and Repair:**

**Scenario:** A drone enthusiast is building a custom drone and needs to connect tiny, high-strand



count silicone wires from the motors to the ESC.

Pain Point Solved: Silicone wire insulation is notoriously soft and easy to cut through with manual strippers, often severing the fine wire strands underneath. The RS3's low-temperature gear safely melts the silicone insulation away from the strands, leaving a perfect, untinned bundle of wires ready for tinning and soldering, ensuring a solid connection that can withstand the vibrations of flight.

## Q&A

Q1: What types of wires and cables can the RS3 thermal wire stripper handle?

A: The RS3 is highly versatile and designed to handle a wide range of insulation types. It is particularly effective on fiber optic coatings, Teflon, silicone, PVC, and enameled wire. The four-gear temperature control allows you to adjust the heat to suit the material, making it ideal for both delicate electronics and tougher telecommunications cables. It excels in situations where mechanical strippers might damage the conductor.

Q2: How long does the battery last on a single charge, and how do I charge it?

A: The RS3 is powered by a long-lasting internal battery. The exact duration can vary based on the temperature gear used, but it is designed for a full day of typical professional use. It features a modern mainstream Type-C charging port, which means you can conveniently recharge it using your laptop, power bank, or any standard 5V 2A USB wall charger, providing ultimate flexibility in the field or workshop.

Q3: The blades on my wire stripper eventually get dirty or dull. How do I maintain the RS3?

A: Easy maintenance is a key feature of the RS3. For daily cleaning, the tool itself has a built-in alcohol cleaning function for the needle body. For deeper cleaning, the kit includes a brush and towel. When the blades eventually wear out from regular use, don't worry; the RS3 features a replaceable blade system, allowing you to easily install new ones and restore the tool to its original performance, making it a cost-effective long-term investment.

Q4: Is the RS3 safe to use, especially if I accidentally leave it on?

A: Absolutely. Safety is a top priority in the RS3's design. It is equipped with multiple intelligent safety features, including auto shut-off which activates after a period of inactivity to prevent accidents and save power. It also has overheat protection to safeguard the internal components and a low battery reminder so you're never caught off guard. These features ensure you can work with complete peace of mind.

Q5: What exactly does the "hidden drop cable stripping function" mentioned in the product description mean?

A: The "hidden drop cable stripping function" refers to a built-in, precision-ground notch integrated into the tool body, specifically designed for stripping the outer sheath of "drop cable" (fiber optic indoor/outdoor cable). This eliminates the need to switch to another, bulky cable sheath stripper, thereby streamlining your workflow and making the process of preparing cables for termination much faster and more convenient.



## **Product Packaging Configuration**

Your RS3 Thermal Wire Stripper purchase includes everything needed for immediate operation and basic maintenance:

- 1 x RS3 Thermal Wire Stripper Unit
- 1 x Multifunctional Holder
- 1 x Power Charger Set (Type-C / 5V 2A)
- 1 x Cleaning Brush
- 1 x General-purpose Cleaning Towel