

## Hitec RCD 54804

# Hitec RCD HRC54804 50-Foot 3-Color Heavy Gauge Servo Wire Instruction Manual

Model: 54804

## 1. INTRODUCTION

This manual provides essential information for the proper use, installation, and maintenance of your Hitec RCD HRC54804 50-foot, 3-color heavy gauge servo wire. Please read this manual thoroughly before use to ensure optimal performance and safety.

The Hitec RCD HRC54804 servo wire is designed for various remote control (RC) applications, including custom servo extensions, power distribution, and accessory wiring. Its heavy gauge and durable construction ensure reliable electrical connections.

## 2. PRODUCT OVERVIEW

The Hitec RCD HRC54804 is a 50-foot length of 3-color heavy gauge servo wire. It features three individual wires (red, black, yellow) encased in a durable outer insulation, suitable for various electrical connections in RC models.



Image 1: Hitec RCD HRC54804 Servo Wire. This image displays the 50-foot length of 3-color heavy gauge servo wire, neatly coiled and secured for packaging. The distinct red, black, and yellow wires are visible, indicating standard servo wiring color coding.

### Key Features:

- Made by Hitec/RCD, a reputable manufacturer in RC components.
- 50-foot length for ample material for multiple projects.
- 3-color (red, black, yellow) standard for servo connections.
- Heavy gauge for improved current handling and reduced resistance.
- Durable copper material for reliable conductivity.

## 3. SETUP AND INSTALLATION

This servo wire is provided in bulk and requires custom termination for specific applications. Follow these general guidelines for setup and installation:

1. **Planning:** Determine the required length of wire for your application. Consider routing paths and potential stress points.
2. **Cutting:** Carefully cut the desired length of wire using sharp wire cutters. Ensure clean cuts to avoid fraying.
3. **Stripping:** Strip approximately 3-5mm of insulation from each individual wire (red, black, yellow) at both ends. Use a wire stripper appropriate for the wire gauge to prevent damage to the copper strands.
4. **Crimping/Soldering:**
  - **For Connectors:** If attaching servo connectors, crimp appropriate pins onto the stripped wire ends. Ensure correct polarity: typically, yellow for signal, red for positive voltage, and black for negative/ground. Insert crimped pins into the connector housing.
  - **For Direct Connection:** If soldering directly to a circuit board or component, tin the stripped

wire ends with solder. Solder the wires securely, observing correct polarity and insulation.

5. **Testing:** Before final installation, test all connections for continuity and correct polarity using a multimeter.
6. **Securing:** Route the installed wire neatly and secure it with cable ties or appropriate fasteners to prevent snagging or interference with moving parts.

**Safety Note:** Always disconnect power from your RC model or electronic device before performing any wiring or installation work. Incorrect wiring can cause damage to components or lead to unsafe operating conditions.

## 4. OPERATING CONSIDERATIONS

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Once properly installed, the Hitec RCD servo wire functions as a reliable electrical conduit. Consider the following during operation:

- **Signal Integrity:** For signal wires (typically yellow), ensure they are routed away from high-current wires or sources of electromagnetic interference (EMI) to maintain signal integrity.
- **Current Capacity:** The heavy gauge wire is designed for robust power delivery. However, always ensure that the current draw of your connected components does not exceed the wire's rated capacity to prevent overheating.
- **Flexibility:** While durable, avoid excessive bending or sharp angles that could stress the wire insulation or internal conductors over time.
- **Environmental Factors:** Protect exposed wiring from moisture, extreme temperatures, and abrasive surfaces.

## 5. MAINTENANCE

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Regular inspection and proper care will extend the lifespan and reliability of your servo wire connections:

- **Visual Inspection:** Periodically inspect all wiring for signs of wear, fraying, cuts, or discoloration of insulation.
- **Connection Integrity:** Check that all crimped or soldered connections remain secure and free from corrosion. Re-crimp or re-solder any loose connections.
- **Cleanliness:** Keep wiring free from dirt, dust, and debris, which can degrade insulation or interfere with connections.
- **Storage:** When not in use, store any remaining bulk wire in a clean, dry environment, away from direct sunlight and extreme temperatures.

## 6. TROUBLESHOOTING

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If you encounter issues with your servo connections, consider the following troubleshooting steps:

- **No Power/Signal:**
  - Verify all connections are secure and correctly polarized (red to positive, black to ground, yellow to signal).
  - Check for continuity in the wire using a multimeter. A break in the wire will prevent current flow.
  - Ensure the power source is active and providing the correct voltage.
- **Intermittent Operation:**

- Inspect for loose crimps or cold solder joints. Re-terminate or re-solder as necessary.
- Check for damaged insulation that might be causing intermittent shorts.
- Ensure the wire is not being pinched or stressed by moving parts.
- **Overheating Wire:**
  - This indicates excessive current draw. Verify that the connected component's current requirements do not exceed the wire's capacity.
  - Check for short circuits in the connected components or wiring.

## 7. SPECIFICATIONS

| Attribute               | Value                                                  |
|-------------------------|--------------------------------------------------------|
| Brand                   | Hitec RCD                                              |
| Model Number            | 54804                                                  |
| Length                  | 50 feet                                                |
| Color                   | Red, Black, Yellow                                     |
| Material                | Copper                                                 |
| Number of Wires         | 3                                                      |
| Number of Cable Strands | 10                                                     |
| Voltage Rating          | 300 Volts                                              |
| Product Dimensions      | 2 x 3 x 6.5 inches (packaged)                          |
| Item Weight             | 8.2 ounces                                             |
| UPC                     | 885907011928, 669962548045, 885247544438, 885547559132 |

## 8. WARRANTY AND SUPPORT

For specific warranty information or technical support regarding the Hitec RCD HRC54804 servo wire, please contact Hitec RCD directly through their official website or customer service channels. Keep your purchase receipt as proof of purchase.

You can visit the [Hitec RCD Store on Amazon](#) for more product information.