RS PRO 355085

RS PRO 24AWG Tinned Copper Hook-Up Wire User Manual

Model: 355085 | Brand: RS PRO

PRODUCT OVERVIEW

The RS PRO 24AWG Tinned Copper Hook-Up Wire is a single-core electrical conductor designed for various internal wiring applications in electronic and electrical equipment. Its tinned copper construction provides excellent conductivity and corrosion resistance, making it suitable for soldering and general circuit connections. This wire is supplied in a 300ft (91.3m) length with a nominal diameter of 0.02in (0.56mm).

Image: A spool of RS PRO 24AWG Tinned Copper Hook-Up Wire. The wire is silver-colored and neatly wound around a black plastic spool.

SETUP AND PREPARATION

Before using the hook-up wire, ensure your workspace is clean, well-lit, and free from obstructions. Gather all necessary tools, such as wire strippers, cutters, soldering iron (if applicable), and safety glasses.

Wire Handling

- Unroll only the required length of wire from the spool to prevent tangling.
- Avoid kinking or sharply bending the wire, as this can damage the conductor or insulation (if present, though this is single core).
- Use appropriate wire strippers to remove insulation cleanly without nicking the copper conductor. For 24AWG wire, use a stripper set to the correct gauge.

OPERATING INSTRUCTIONS

This hook-up wire is primarily used for making electrical connections within circuits and devices. Its tinned copper composition makes it ideal for soldering applications.

Making Connections

1. **Measure and Cut:** Determine the exact length of wire needed for your connection. Cut the wire using wire cutters, ensuring a clean, straight cut.
2. **Strip Insulation:** Carefully strip a small portion of insulation from both ends of the wire using a 24AWG wire stripper. The exposed conductor should be just long enough for the connection.
3. **Prepare for Connection:** If soldering, pre-tin the exposed copper ends with a small amount of solder. This improves solder flow and connection quality.
4. **Connect:** Securely connect the wire to the desired terminals, components, or circuit board pads. Ensure a firm mechanical connection before soldering (if applicable).
5. **Solder (if applicable):** Apply heat from the soldering iron to the joint, then introduce solder to flow around the connection, creating a strong electrical and mechanical bond. Allow the joint to cool naturally.

Safety Note: Always disconnect power from any circuit before making or modifying connections. Wear appropriate personal protective equipment (PPE), such as safety glasses, when working with electrical components and soldering.

MAINTENANCE AND STORAGE

Proper maintenance and storage will ensure the longevity and performance of your RS PRO hook-up wire.

- **Storage:** Store the wire on its original spool in a cool, dry place, away from direct sunlight and extreme temperatures. This prevents degradation of the wire and any potential insulation.
- **Protection:** Keep the wire away from sharp objects, corrosive chemicals, and excessive moisture.
- **Cleanliness:** Ensure the wire remains clean and free from dust or debris, especially the exposed copper ends, to maintain optimal conductivity.

TROUBLESHOOTING

While hook-up wire is a passive component, issues can arise from improper handling or application.

Problem	Possible Cause	Solution
Poor electrical connection	Improper stripping; cold solder joint; loose mechanical connection; oxidized wire.	Re-strip and re-connect; re-solder with proper technique; ensure tight mechanical connection; clean wire ends before use.

Problem	Possible Cause	Solution
Wire breaks easily	Repeated bending; excessive pulling force; nicks during stripping.	Handle wire carefully; avoid sharp bends; use correct wire strippers; replace damaged sections.
Solder does not adhere well	Insufficient heat; dirty wire; old solder; oxidized wire.	Ensure soldering iron is at correct temperature; clean wire ends; use fresh solder; gently abrade oxidized wire if necessary.

SPECIFICATIONS

The following are the key specifications for the RS PRO 24AWG Tinned Copper Hook-Up Wire:

- **Brand:** RS PRO
- **Model:** 355085
- **ASIN:** B08Y5NDLRK
- **Description:** Hook-Up Wire 24AWG Tinned Copper Single Core
- **Length:** 300ft (91.3m)
- **Gauge:** 24 AWG
- **Conductor Material:** Tinned Copper
- **Conductor Diameter:** 0.02in (0.56mm)
- **Finish Type:** Polished
- **UPC:** 044761431871
- **Date First Available:** March 5, 2021
- **Manufacturer:** RS PRO

WARRANTY AND SUPPORT

For information regarding product warranty, technical support, or further assistance, please refer to the official RS PRO website or contact your authorized RS PRO distributor. Keep your purchase receipt as proof of purchase.

Note: This manual provides general guidelines. Specific application requirements may vary. Always consult relevant electrical codes and safety standards for your project.