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› Custom Cable Connection 16/3 SOOW 16 AWG 3 Conductor 600 Volt Portable Power Cable Instruction Manual

Custom Cable Connection 163SOOW-250

Custom Cable Connection 16/3 SOOW 16 AWG 3 Conductor 600 Volt Portable Power Cable Instruction Manual

1. PRODUCT OVERVIEW

This manual provides essential information for the safe and effective use of the Custom Cable Connection 16/3 SOOW 16 AWG 3 Conductor 600 Volt Portable Power Cable. This cable is designed for heavy-duty portable electrical power and control wire applications, offering flexibility and resistance to various environmental factors.



Image 1.1: Custom Cable Connection 16/3 SOOW Portable Power Cable, 250 Foot Spool.


Key Features:

- **SOOW Applications:** Recommended for portable electrical power and control wire cable, suitable for heavy-duty service due to its flexibility and resistance to abrasion, chemicals, weather, and ozone. Also used for ground tests and motor leads.
- **Oil and Moisture Resistance:** Exhibits excellent resistance to oil and moisture, maintaining good tensile strength, elongation, and aging characteristics. It is highly flexible and resistant to water and sunlight.
- **600 Volt Rating:** Rated for up to 600 volts for both indoor and outdoor use. Features a temperature range of -40°C to 90°C, making it suitable for diverse environmental conditions. UL-approved for permanent installations.
- **Construction:** Composed of 16 AWG fully annealed stranded bare copper conductors (black, green, white) per ASTM B-174. Insulation thickness is 0.76 mm (0.030 inches). The overall jacket is a black, oil-resistant thermoset compound per UL 62, with an outside cable diameter of 0.390 inches.

2. SAFETY INFORMATION

Always prioritize safety when working with electrical cables. Improper handling or installation can lead to electric shock, fire, or damage to equipment.

- Ensure all power sources are disconnected before handling or installing the cable.
- Consult a qualified electrician for complex installations or if you are unsure about any procedure.
- Do not exceed the cable's rated voltage (600V) or temperature limits (-40°C to 90°C).
- Inspect the cable for any damage (cuts, abrasions, exposed wires) before each use. Do not use damaged cables.
- Avoid sharp bends or kinks that can damage the internal conductors.
- Keep the cable away from excessive heat sources or open flames.
- Ensure proper grounding according to local electrical codes.



UL-LISTED

- **RoHS, Made In America**

- ✓ **Manufactured in ISO-9001 Rated Facility**
- ✓ **Underwriters Laboratories Certified**
- ✓ **Certified to UL 62 and CSA for SOOW**
- ✓ **MSHA and printed with the manufacturer's P number**

Image 2.1: The cable is UL-Listed, manufactured in an ISO-9001 rated facility, and certified to UL 62 and CSA for SOOW.

3. SETUP AND INSTALLATION

This section outlines general steps for preparing and installing the SOOW portable power cable. Specific installation requirements may vary based on your application and local electrical codes.

Cable Preparation:

1. **Measure and Cut:** Determine the required length of cable and cut it cleanly using appropriate cable cutters.
2. **Strip Outer Jacket:** Carefully strip the outer thermoset jacket to expose the insulated conductors. Use a cable stripper set to the correct gauge to avoid damaging the internal insulation.
3. **Strip Conductor Insulation:** Strip the insulation from the ends of the individual conductors (black, green, white) to the appropriate length for your connectors or terminals.
4. **Terminate Conductors:** Securely connect the prepared conductors to your electrical devices, plugs, or terminals. Ensure all connections are tight and properly insulated.

Your browser does not support the video tag.

Video 3.1: Demonstration of stripping the outer jacket and individual conductors of a 16/3 SOOW portable power cord.



Image 3.2: Cross-section diagram illustrating the 3-conductor, 26-strand copper construction and synthetic rubber insulation.

4. OPERATING INSTRUCTIONS

The Custom Cable Connection SOOW cable is designed for reliable power transmission in various demanding

environments.

- **Connection:** Connect the cable to appropriate power sources and equipment, ensuring compatibility with voltage and current ratings.
- **Routing:** Route the cable in a manner that prevents tripping hazards, crushing, or excessive tension.
- **Environmental Use:** The cable's resistance to oil, moisture, water, and sunlight makes it suitable for both indoor and outdoor applications, including industrial tools, portable equipment, and versatile power setups.
- **Monitoring:** Periodically check the cable during operation for any signs of overheating or damage.

Industrial & Home Applications



Appliances



Portable Equipment



Industrial Tools



Versatile Power

Image 4.1: Examples of industrial and home applications for the portable power cable.

5. MAINTENANCE

Proper maintenance extends the life and ensures the safe operation of your SOOW cable.

- **Cleaning:** Clean the cable periodically with a damp cloth to remove dirt and grime. Avoid harsh chemicals that could degrade the jacket material.
- **Inspection:** Regularly inspect the entire length of the cable for any signs of wear, cuts, cracks, or discoloration. Pay close attention to areas near connectors.

- **Storage:** When not in use, coil the cable neatly without kinks and store it in a dry, cool place away from direct sunlight and extreme temperatures.
- **Repair:** Do not attempt to repair damaged cables. Replace them immediately to prevent safety hazards.

6. TROUBLESHOOTING COMMON ISSUES

If you encounter issues with your power cable, consider the following basic troubleshooting steps:

- **No Power:** Check if the power source is active and if all connections are secure. Verify that the cable is not damaged.
- **Intermittent Power:** Inspect for loose connections at either end of the cable or within the equipment. Look for signs of internal wire damage.
- **Overheating:** If the cable feels excessively warm, disconnect it immediately. This could indicate an overload, short circuit, or internal damage. Ensure the cable's gauge is appropriate for the current draw.
- **Visible Damage:** Any visible damage to the outer jacket or insulation requires immediate replacement of the cable.

7. TECHNICAL SPECIFICATIONS

Specification	Detail
Model Number	163SOOW-250
Gauge	16 AWG
Conductors	3 (Black, Green, White)
Voltage Rating	600 Volts
Material	Fully Annealed Stranded Bare Copper
Insulation Thickness	0.76 mm / 0.030 inches
Outer Jacket	Black, Oil-Resistant Thermoset Compound (UL 62)
Outside Cable Diameter	0.390 inches
Temperature Range	-40°C to 90°C
Certifications	UL-Listed, CSA, RoHS Compliant
Length	250 Foot Spool

Black Thermoset Jacket

- Supports up to 600v
- Rated for 90 celsius

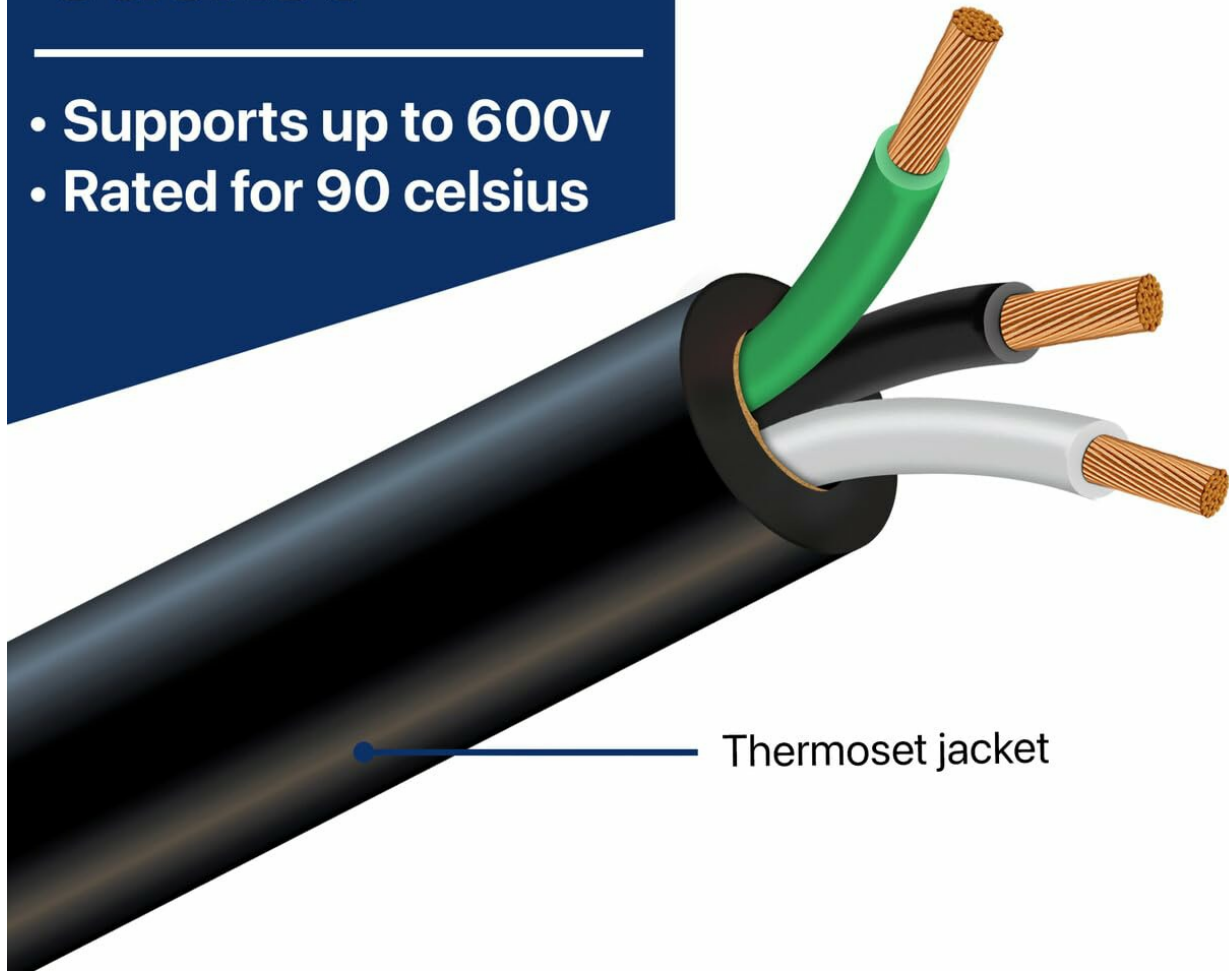


Image 7.1: Detail of the black thermoset jacket and insulated conductors.

8. WARRANTY AND SUPPORT

Custom Cable Connection is a family-owned business established in 2002, committed to providing high-quality, American-made cable solutions. For specific warranty details or technical support, please refer to the official Custom Cable Connection website or contact their customer service directly.

For further assistance, please visit the Custom Cable Connection Store on Amazon.



Image 8.1: Custom Cable Connection facility in Dallas, Texas, operating since 2002.

