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TEMCo Industrial WC0191

TEMCo WC0191-50' 4 Gauge AWG Welding Lead and Car Battery Cable

Instruction Manual

Model: WC0191 | Brand: TEMCo Industrial

1. PRODUCT OVERVIEW

The TEMCo WC0191 welding lead and car battery cable is a high-quality, flexible electrical cable designed for various heavy-duty applications. This product features 100% oxygen-free copper strands for maximum conductivity and an ultra-durable EPDM rubber insulation for protection in demanding environments.

**ULTRA DURABLE
EPDM RUBBER
INSULATION**

**PAPER
SEPARATOR
FOR EASY
STRIPPING**

**HIGH QUALITY
100% OXYGEN-
FREE COPPER**

**PROUDLY MADE
IN THE
USA** 

**NOT COPPER CLAD ALUMINUM
NOT
CCA** 

CHOOSE YOUR COLOR AND SIZE

Image 1.1: Internal construction of TEMCo welding cable, highlighting ultra-durable EPDM rubber insulation, a paper separator for easy stripping, and high-quality 100% oxygen-free copper strands. The product is proudly made in the USA and is not copper clad aluminum (CCA).

The cable's design prioritizes flexibility, making it easy to route and install in tight spaces. Its robust construction ensures longevity and reliable performance.



TEMCO'S SUPER FLEXIBLE WIRE BENDS EASILY FOR YOUR INSTALL

Image 1.2: This image demonstrates the high flexibility of TEMCo welding cable, showing it easily bending into various shapes on a truck bed. This flexibility aids in easier installation and routing in diverse applications.

2. APPLICATIONS

TEMCo welding cable is suitable for a wide range of applications requiring durable and flexible electrical connections. Common uses include:

- **Welding Leads:** Providing power to welding equipment.
- **Car Battery Cables:** Connecting automotive batteries to electrical systems.
- **Car Audio Systems:** Supplying power to high-current audio components.
- **Inverter Cables:** Connecting inverters to battery banks.
- **Grounding Cables:** For various electrical grounding needs.

TEMCO WELDING CABLE, PERFECT FOR



CAR AUDIO, BATTERY SETUPS, & WELDING LEADS

CHOOSE YOUR COLOR AND SIZE

Image 2.1: This collage showcases the versatility of TEMCo welding cable, illustrating its use in car audio systems, various battery setups, and as welding leads. The cables are visible connecting components in different configurations.

The cable's robust construction allows it to withstand significant stress, making it suitable for heavy-duty tasks.



HEAVY DUTY INSULATION RESISTS OILS, CHEMICALS, ACIDS, WATER, & FLAME

CHOOSE YOUR COLOR AND SIZE

Image 2.2: This image highlights the robust strength of TEMCo welding cable, depicting a 6000 lb truck being suspended by the cables. This illustrates the cable's durability and load-bearing capacity for heavy-duty applications.

3. SAFETY INFORMATION

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

General Safety Guidelines:

- Ensure all power sources are disconnected before making or breaking electrical connections.
- Wear appropriate personal protective equipment (PPE), including insulated gloves and eye protection.
- Verify that the cable's gauge and voltage rating are suitable for your specific application to prevent overheating and damage.
- Avoid kinking or sharply bending the cable, which can damage the internal conductors.
- Keep cables away from sharp edges, moving parts, and extreme heat sources.
- Regularly inspect cables for any signs of damage, such as cuts, abrasions, or exposed wires. Replace damaged cables immediately.

Insulation Properties:

The heavy-duty EPDM insulation on TEMCo welding cables provides excellent resistance to various environmental factors:

- **Oils and Chemicals:** Resists degradation from common industrial oils and chemicals.
- **Acids:** Provides protection against acidic substances.
- **Water:** Offers water resistance for outdoor and marine applications.
- **Flame:** Designed to be flame resistant, enhancing safety.

OFFERED IN DIFFERENT SIZES IN RED OR BLACK

WELDING CABLE SIZES

GAUGE (AWG)	#6	#4	#2	#1	1/0	2/0	3/0	4/0
SIZING DIAGRAM								
*AMPACITY AT 50 FT	115	150	205	240	285	325	380	440
STRAND COUNT/GAUGE	260/30	364/30	624/30	767/30	975/30	1,196/30	1,547/30	1,950/30
O.D (INCHES)	0.303	0.331	0.413	0.481	0.526	0.564	0.621	0.686
O.D (IN) COPPER	0.2	0.228	0.3	0.343	0.373	0.426	0.465	0.56
~OZ PER FEET	1.8	2.4	3.8	4.5	5.6	6.8	8.9	10.0

* Ampacity shown is for welding applications. For all other applications, refer to a standard ampacity chart for stranded copper wire at 105°C

NEC ARTICLE 630 ELECTRIC WELDERS | SAE MEETS SAE J1127 | ASTM AND ASTM B-172 STANDARDS | ROHS COMPLIANT

TEMCo
INDUSTRIAL

PROUDLY MADE
IN THE USA

Image 3.1: The image displays a coiled TEMCo welding cable next to a bank of batteries, emphasizing its heavy-duty insulation. This insulation is designed to resist oils, chemicals, acids, water, and flame, ensuring durability and safety in harsh environments.

4. INSTALLATION AND SETUP

Proper termination of the cable ends is crucial for safe and efficient operation. This section outlines the general steps for attaching tin-plated copper cable lugs and heat shrink tubing.

Required Tools:

- Cable cutter/stripper
- Crimping tool (hydraulic or heavy-duty mechanical)
- Heat gun
- Tin-plated copper cable lugs (appropriate size for cable gauge)
- Heat shrink tubing (appropriate size)

Steps for Cable Termination:

1. **Prepare the Cable:** Cut the cable to the desired length. Carefully strip approximately 1 inch (2.5 cm) of insulation from the end of the cable, exposing the copper strands. Ensure the strands are clean and untwisted.
2. **Slide Heat Shrink Tubing:** Before attaching the lug, slide a piece of heat shrink tubing (long enough to cover the lug barrel and a portion of the cable insulation) onto the cable.
3. **Insert Cable into Lug:** Insert the stripped end of the cable fully into the barrel of the tin-plated copper cable lug. The flared barrel design of TEMCo lugs facilitates easy entry.
4. **Crimp the Lug:** Using a suitable crimping tool, firmly crimp the lug onto the cable. Ensure a secure and robust connection. Multiple crimps may be necessary depending on the lug and tool type.
5. **Apply Heat Shrink:** Slide the heat shrink tubing over the crimped connection, ensuring it covers the lug barrel and extends onto the cable insulation. Apply heat evenly with a heat gun until the tubing shrinks tightly around the connection, creating a sealed and insulated joint.

Your browser does not support the video tag.

Video 4.1: This video demonstrates the process of preparing TEMCo welding cables by attaching tin-plated copper cable lugs and applying heat shrink tubing. It shows how to properly strip the cable, insert it into the lug, crimp the connection, and seal it with heat shrink for a secure and moisture-resistant termination.

5. SPECIFICATIONS

The TEMCo WC0191 cable is a 4 Gauge AWG cable. Refer to the table below for detailed specifications and a comparison of various TEMCo welding cable sizes.



QUALITY TOOLS SINCE 1968

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Image 5.1: This detailed chart provides specifications for various TEMCo welding cable sizes, from #6 AWG to 4/0 AWG. It includes visual sizing diagrams, ampacity ratings, strand count per gauge, outer diameter (OD) in inches, and resistance in ohms per 100 feet. This information is crucial for selecting the correct cable for specific electrical requirements.

General Product Specifications (WC0191):

Feature	Specification
Model Number	WC0191
Gauge	4 AWG
Length	50 feet (25' Black, 25' Red)
Material	100% Oxygen-Free Copper
Insulation	EPDM Rubber
Voltage Rating	600 Volts
Color	Black and Wine Red
Item Weight	3.33 kg

6. MAINTENANCE AND CARE

Proper maintenance ensures the longevity and safe operation of your TEMCo welding cables.

- **Regular Inspection:** Periodically inspect the entire length of the cable for any signs of wear, cuts, cracks, or damage to the insulation. Pay close attention to the areas near the terminals.
- **Cleanliness:** Keep the cable clean and free from dirt, grease, and corrosive substances. Use a damp cloth to wipe down the insulation if necessary.
- **Storage:** When not in use, coil the cable neatly and store it in a dry, cool place away from direct sunlight, extreme temperatures, and sharp objects. Avoid tight coiling that could stress the conductors.
- **Terminal Connections:** Ensure terminal connections remain tight and free of corrosion. Loose connections can cause resistance, heat buildup, and potential hazards.
- **Avoid Overloading:** Always operate the cable within its specified ampacity and voltage ratings to prevent overheating and damage.

7. TROUBLESHOOTING

If you encounter issues with your TEMCo welding cable, consider the following troubleshooting steps:

- **No Power/Intermittent Power:**
 - Check all connections for tightness and ensure they are free of corrosion.
 - Inspect the cable for visible damage (cuts, breaks, severe kinks).
 - Verify that the power source is active and functioning correctly.
- **Cable Overheating:**
 - Ensure the cable gauge is appropriate for the current draw of your application. An undersized cable will overheat.
 - Check for loose or corroded connections, which can increase resistance and generate heat.
 - Confirm that the cable is not routed through areas of excessive ambient heat.
- **Damaged Insulation:**
 - If the insulation is compromised, the cable should be replaced immediately to prevent electrical hazards. Do not attempt to repair damaged insulation with electrical tape for high-current applications.

8. WARRANTY INFORMATION

TEMCo Industrial products are manufactured to high standards. For specific warranty details regarding your WC0191 welding lead and car battery cable, please refer to the official TEMCo Industrial website or contact their customer support directly. Keep your proof of purchase for any warranty claims.

9. CONTACT INFORMATION

For further assistance, technical support, or inquiries about your TEMCo Industrial product, please visit the official TEMCo Industrial website or contact their customer service department. Contact details can typically be found on the product packaging or the company's official online presence.