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Sierra 18-8835-1

Sierra International 18-8835-1 Wiring Plug Set User Manual

Model: 18-8835-1

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the Sierra International 18-8835-1 Wiring Plug Set. This product is designed to deliver reliable ignition performance for compatible marine engines, specifically select 262 Mag/4.3L EFI Mercruiser Engines with Delco HEI ignition systems. Please read this manual thoroughly before installation and use to ensure proper function and longevity of your wiring plug set.



Figure 1: The Sierra International 18-8835-1 Wiring Plug Set, featuring blue spark plug wires coiled for display.

2. SETUP & INSTALLATION

Proper installation of the wiring plug set is crucial for optimal engine performance and safety. This set is specifically designed for Delco HEI ignition systems in select 262 Mag/4.3L EFI Mercruiser Engines.

2.1 Safety Precautions

- Always disconnect the battery before working on the ignition system to prevent electrical shock.
- Ensure the engine is cool to the touch before beginning installation.
- Wear appropriate personal protective equipment, including gloves and eye protection.
- Refer to your engine's service manual for specific torque specifications and additional safety guidelines.

2.2 Installation Steps

1. **Identify Wires:** Carefully note the routing and connection points of the existing spark plug wires. It is recommended to replace one wire at a time to avoid mixing up cylinder connections.
2. **Remove Old Wires:** Grasp the spark plug boot, not the wire, and twist gently while pulling to remove it from the spark plug. Repeat for the distributor cap end.
3. **Compare Lengths:** Select a new Sierra 18-8835-1 wire that matches the length of the wire just removed. The set includes various lengths:

- Two (2) spark plug wires: 29 inches
- Two (2) spark plug wires: 33 inches
- Two (2) spark plug wires: 39 inches
- One (1) coil wire: 15.5 inches

4. Install New Wires:

- Apply a small amount of dielectric grease (not included) to the inside of the spark plug boots to aid in installation and prevent moisture intrusion.
- Firmly push the spark plug boot onto the spark plug until it clicks or seats securely.
- Connect the other end of the wire to the corresponding terminal on the distributor cap, ensuring a secure connection.
- Repeat for all spark plug wires and the coil wire.

5. **Secure Wires:** Route the new wires using the original wire looms or clips to prevent them from touching hot engine components or moving parts.

6. **Reconnect Battery:** Once all wires are securely installed and routed, reconnect the battery.

7. **Test Engine:** Start the engine and check for smooth operation, listening for any misfires or unusual noises.

3. OPERATION

The Sierra International 18-8835-1 Wiring Plug Set is a critical component of your engine's ignition system. Once correctly installed, these wires function by efficiently transferring high voltage from the Ignition coil and distributor to the spark plugs, initiating combustion within the engine cylinders. The advanced design of these wires ensures:

- **Maximum Voltage Delivery:** The Mag/Wire wound core is engineered to deliver maximum voltage to the spark plugs, promoting efficient combustion.
- **Interference Suppression:** Designed to suppress radio frequency interference (R.F.I.) and electromagnetic interference (E.M.I.), which can affect marine electronics and engine sensors.
- **Reliable Performance:** High-quality materials and construction contribute to consistent and reliable ignition performance under various marine conditions.



Figure 2: Cross-section diagram illustrating the internal construction and features of a Sierra spark plug wire, highlighting

components like the conductive center carrier, Mag/Wire wound core, and silicone jacket.

4. MAINTENANCE

Regular inspection and proper maintenance will extend the life of your Sierra wiring plug set and ensure continued optimal engine performance.

- Visual Inspection:** Periodically inspect the wires and boots for any signs of wear, cracks, fraying, or damage. Look for discoloration, especially near hot engine components, which could indicate overheating.
- Connection Integrity:** Ensure all boots are securely seated on both the spark plugs and the distributor cap. Loose connections can lead to misfires.
- Cleanliness:** Keep the wires clean and free from oil, grease, and dirt, which can degrade the insulation over time. Use a mild detergent and water if cleaning is necessary, ensuring the engine is cool and dry before starting.
- Routing:** Verify that wires remain properly routed and secured away from moving parts and extreme heat sources.
- Replacement:** While Sierra wires are built for durability, they are subject to wear over time. Consult your engine's service manual for recommended spark plug wire replacement intervals. Signs of degradation (e.g., engine misfires, rough idle, reduced fuel efficiency) may indicate a need for earlier replacement.

5. TROUBLESHOOTING

If you experience issues with your engine's ignition system, the following basic troubleshooting steps may help identify problems related to the spark plug wires.

Symptom	Possible Cause	Action
Engine Misfire / Rough Idle	Damaged or worn spark plug wire, loose connection, internal wire breakdown.	Inspect wires for visible damage. Check connections at spark plug and distributor. Test wire resistance with a multimeter (refer to engine manual for specifications). Replace faulty wire.
Reduced Engine Power / Poor Acceleration	Degraded wire insulation leading to voltage leakage, high resistance in wires.	Visually inspect for arcing in dark conditions. Check wire resistance. Consider replacing the set if multiple wires show signs of degradation.
Engine Cranks but Won't Start	No spark due to completely failed wire or coil wire.	Check for spark at the spark plugs. Ensure coil wire is securely connected and intact. This symptom can also indicate other ignition system failures (e.g., coil, distributor).
Interference with Marine Electronics	Damaged or non-suppression wires.	Ensure wires are properly routed and not touching other electrical components. Verify wires are suppression type (Sierra 18-8835-1 are designed for suppression). Replace if damaged.

Note: If troubleshooting steps do not resolve the issue, it is recommended to consult a qualified marine mechanic or refer to your engine's comprehensive service manual.

6. SPECIFICATIONS

- Model Number:** 18-8835-1

- **Brand:** Sierra International
- **Product Type:** Spark Plug Wire Set
- **Ignition Type:** Delco HEI
- **Compatibility:** Select 262 Mag/4.3L EFI Mercruiser Engines
- **Lead Lengths:**
 - Spark Plug Wires: Two (2) at 29 inches, Two (2) at 33 inches, Two (2) at 39 inches
 - Coil Wire: One (1) at 15.5 inches
- **Wire Construction Features:**
 - Moisture-proof, molded distributor insulators
 - High-quality conductive center carrier reinforcement
 - Mag/Wire wound core for maximum voltage and RFI/EMI suppression
 - High tensile strength membrane for durability
 - Innovative nylon reinforcing tape
 - 8mm high tear strength silicone jacket (protects up to 500°F)
 - High-temperature, pre-greased silicone insulators
 - Posi-lock stainless steel terminals (corrosion resistant)
- **Item Weight:** Approximately 1.45 pounds (0.66 kg)
- **Product Dimensions:** Approximately 0.39 x 0.39 x 0.39 inches (packaged, individual wires vary)
- **Fit Type:** Universal Fit (for specified engine types)

7. WARRANTY INFORMATION

Sierra International is committed to the quality and durability of its products. The Sierra 18-8835-1 Wiring Plug Set is covered by Sierra's industry-leading Customer Satisfaction Warranty.

Sierra warrants its products to be free of defects in workmanship and materials for the useful life of the product. If a Sierra product fails to comply with this warranty, Sierra will repair or replace the defective product free of charge.

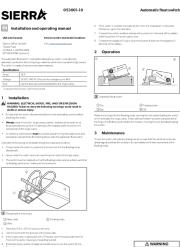
This warranty is subject to additional terms, conditions, and limitations. For complete details regarding the warranty policy, including specific terms and conditions, please refer to the official Sierra International website or contact their customer service department.

8. CUSTOMER SUPPORT

For further assistance, technical inquiries, or warranty claims regarding your Sierra International 18-8835-1 Wiring Plug Set, please contact Sierra International customer support. You can typically find contact information, including phone numbers and email addresses, on the official Sierra International website (www.sierraparts.com). When contacting support, please have your product model number (18-8835-1) and purchase details readily available.

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This manual is for informational purposes only. Sierra International is not responsible for any damages or injuries resulting from improper installation or use of this product.

	<p><u>Sierra STATS Engine Diagnostics Operating Manual</u></p> <p>Operating manual for the Sierra STATS diagnostic tool, covering marine engine diagnostics, features, and support for major brands like Mercury, Yamaha, Suzuki, Honda, Volvo, Yanmar, Kawasaki, and BRP.</p>
	<p><u>Sierra Automatic Float Switch 053001-10: Installation and Operating Manual</u></p> <p>Detailed installation and operating guide for the Sierra Automatic Float Switch (Model 053001-10). Learn how to safely install, operate, and maintain this corrosion-resistant bilge pump switch for reliable boat bilge water management.</p>
	<p><u>Sierra All-in-1 Fuel Tank Combo Package Installation Manual</u></p> <p>Installation guide for the Sierra All-in-1 Fuel Tank Combo Package (models 053701-10, 053703-10). This document provides detailed instructions, scope of delivery, recommended tools, and component identification for universal outboard engine fuel systems.</p>
	<p><u>Leisure Suit Larry Hint Book - Sierra On-Line Game Guide</u></p> <p>Comprehensive hint book for Sierra On-Line's Leisure Suit Larry adventure game. Includes walk-throughs, maps, object locations, solutions, and FAQs to help players complete the game.</p>
	<p><u>Sierra SRSP-18 Stock Pot Range Owner's Manual: Installation & Operation Guide</u></p> <p>Comprehensive owner's manual for the Sierra SRSP-18 Stock Pot Range, detailing installation, operation, maintenance, and troubleshooting for commercial kitchens.</p>
	<p><u>Sierra SRMG Series Manual Griddles Owner's Manual</u></p> <p>This owner's manual provides comprehensive instructions for the installation, operation, and maintenance of Sierra SRMG series manual griddles, including models SRMG-12, SRMG-24, SRMG-36, SRMG-48, and SRMG-60. Essential for qualified personnel.</p>