

## Maretron DM-DG1-DF-03.0

# Maretron DM-DG1-DF-03.0 NMEA2000 Mid Double Ended Cordset

MODEL: DM-DG1-DF-03.0

## 1. Introduction

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This manual provides essential information for the safe and effective use of your Maretron DM-DG1-DF-03.0 NMEA2000 Mid Double Ended Cordset. Please read these instructions thoroughly before installation and operation to ensure proper functionality and to prevent damage to the product or connected equipment. This cordset is designed for reliable data and power transmission within NMEA2000 marine networks.

## 2. Safety Information

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- **Electrical Safety:** Always disconnect power to the NMEA2000 network before installing or removing the cordset to prevent electrical shock or damage to components.
- **Proper Connection:** Ensure all connections are secure and fully seated. The connectors are keyed to prevent incorrect insertion.
- **Waterproof Integrity:** While the connectors are IP68 rated for submersion, ensure they are clean and free of debris before connecting to maintain their waterproof seal.
- **Cable Routing:** Route cables to avoid sharp bends, chafing, or areas where they might be stepped on or damaged.
- **Environmental Conditions:** This product is designed for marine environments. However, avoid exposing the cable to extreme temperatures or harsh chemicals that could degrade its materials.

## 3. Product Overview

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The Maretron DM-DG1-DF-03.0 is a 3.0-meter (approximately 118.11 inches) gray NMEA2000 Mid Double Ended Cordset. It features one male 5-pin NMEA2000 mid connection and one female 5-pin NMEA2000 mid connection, designed for extending or connecting trunk or drop lines within an NMEA2000 network.

## Key Features:

- **Length:** 3.0 meters (approximately 118.11 inches).
- **Connectors:** One male 5-pin NMEA2000 mid connection and one female 5-pin NMEA2000 mid connection.
- **Durability:** Rugged, IP68 rated connectors ensure continued connection integrity even when submerged in marine environments.
- **Ease of Installation:** Keyed connectors prevent incorrect insertion, simplifying installation.
- **Optimized Performance:** Power pair wires have half the resistance of Micro cable, optimizing for voltage drop sensitive networks over long runs.
- **Electrical Rating:** Voltage rating 250 V, 4.0 amps maximum.



Figure 1: Maretron DM-DG1-DF-03.0 NMEA2000 Mid Double Ended Cordset. This image displays the gray cable with its distinct male and female 5-pin NMEA2000 mid connectors.

## 4. Setup and Installation

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1. **Power Disconnection:** Before beginning installation, ensure all power to the NMEA2000 network and connected devices is turned off.
2. **Identify Connection Points:** Determine where the cordset will be used to extend a trunk line or

connect a drop line to a T-connector.

3. **Inspect Connectors:** Visually inspect both the male and female connectors of the cordset and the corresponding ports on your NMEA2000 devices or backbone for any debris or damage. Clean if necessary.
4. **Connect Male End:** Align the male 5-pin connector of the cordset with the female port on your NMEA2000 device or T-connector. The connectors are keyed, so they will only fit in one orientation. Gently push until fully seated.
5. **Connect Female End:** Align the female 5-pin connector of the cordset with the male port on your NMEA2000 device or T-connector. Gently push until fully seated.
6. **Secure Connections:** Hand-tighten the locking collars on both ends of the cordset to ensure a secure and waterproof connection. Do not overtighten.
7. **Cable Management:** Route the cable neatly, avoiding sharp bends, kinks, or areas where it could be pinched or damaged. Use cable ties or clamps as needed to secure the cable.
8. **Power On:** Once all connections are secure, restore power to the NMEA2000 network. Verify that all connected devices are functioning correctly.

## 5. Operating Instructions

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The Maretron DM-DG1-DF-03.0 cordset is a passive component designed to facilitate data and power transmission within an NMEA2000 network. Once properly installed, it requires no active operation. Its function is to provide a reliable and robust connection between NMEA2000 devices or segments of the network backbone.

Ensure that the cordset remains securely connected and that its physical integrity is maintained to guarantee continuous and stable network performance.

## 6. Maintenance

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- **Regular Inspection:** Periodically inspect the cordset for any signs of wear, cuts, abrasions, or damage to the cable jacket or connectors.
- **Connector Cleaning:** If disconnecting the cordset, inspect the connector pins and sockets for corrosion, dirt, or moisture. Clean with a suitable electrical contact cleaner if necessary, ensuring no residue remains before re-connecting.
- **Waterproof Seals:** Ensure the O-rings and sealing surfaces within the connectors are clean and intact to maintain the IP68 waterproof rating.
- **Secure Connections:** Verify that all locking collars are hand-tight and connections are secure.
- **Storage:** If the cordset is removed from service, store it in a clean, dry place, protected from direct sunlight and extreme temperatures.

## 7. Troubleshooting

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If you experience issues with your NMEA2000 network after installing or using the DM-DG1-DF-03.0 cordset, consider the following:

- **No Data/Power Flow:**
  - Check that both ends of the cordset are fully seated and their locking collars are securely tightened.
  - Ensure the cordset is connected to the correct NMEA2000 ports (male to female, female to

male).

- Inspect the cable for visible damage (cuts, severe kinks) that could interrupt internal wiring.
- Verify that power is supplied to the NMEA2000 network backbone.
- Test with a known working cordset if available, to isolate the issue.

- **Intermittent Connectivity:**

- Ensure connections are tight and not vibrating loose.
- Check for corrosion or debris within the connectors that might cause poor contact.
- Inspect the cable for internal breaks by gently flexing it while monitoring network status (if possible).

- **Water Ingress:**

- If water is found inside a connector, disconnect power immediately.
- Clean and dry the connectors thoroughly. Inspect O-rings for damage and replace if necessary.
- Ensure locking collars are fully tightened to prevent future ingress.

If troubleshooting steps do not resolve the issue, contact Maretron customer support or a qualified marine electronics technician.

## 8. Specifications

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Attribute	Value
Model Number	DM-DG1-DF-03.0
Brand	Maretron
Product Type	NMEA2000 Mid Double Ended Cordset
Length	3.0 meters (approx. 118.11 inches)
Color	Gray
Connector Gender	Male-to-Female (5-pin NMEA2000 Mid)
Voltage Rating	250 Volts
Input Current	4 Amps maximum
Waterproof Rating	IP68
Item Weight	363 g
Product Dimensions	20.32 x 15.24 x 2.54 cm (packaging)
GTIN / UPC	873804001791

## 9. Warranty and Support

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Specific warranty details for the Maretron DM-DG1-DF-03.0 NMEA2000 Mid Double Ended Cordset are typically provided with the product packaging or available on the official Maretron website. Please refer to these resources for comprehensive warranty information.

For technical support, service, or further inquiries, please contact Maretron customer service directly

through their official website or the contact information provided with your purchase documentation.