

## Varstrom VD18MT

# Varstrom VD18MT Ebike Display Instruction Manual

Model: VD18MT

## 1. PRODUCT OVERVIEW

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The Varstrom VD18MT TFT EBike Display is designed for BAFANG 24V/36V/48V/52V UART protocol front/rear hub motors, specifically G020, G0900, and G062 motor systems. It provides a comprehensive and user-friendly interface for your electric bicycle, enhancing your riding experience with clear data and easy controls.

### Key Features:

- **Compatibility:** Engineered for seamless integration with Bafang UART protocol hub motors (G020, G0900, G062).
- **Display:** 1.45-inch TFT color touch screen for clear readability and intuitive operation.
- **Visibility:** 4-level backlight adjustment for optimal visibility in various lighting conditions.
- **Smart App & Multi-Language Support:** Bluetooth connectivity for real-time data tracking and navigation via smartphone app. Supports 9 languages.
- **Durability:** IP67 waterproof rating.

## 2. SETUP AND INSTALLATION

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### 2.1 Compatibility Check

Before installation, ensure your motor system uses the Bafang UART protocol and has a 5-pin female circular connector. This display is not compatible with CAN protocol motors (which typically have a 5-pin triangle connector). Using adapters or modifying connectors will not resolve compatibility issues.

# Must Confirm Before Order

Please make sure the connector of your device is the same as the picture shows. Otherwise it means that the display is not compatible with the protocol program of your device. Using a converter/adapter cannot start the display normally.



**Figure 2.1:** Confirm your motor's connector matches the 5-pin circular type shown. Incorrect connector types will prevent normal operation.

# Compatibility





**BAFANG BBS Series Motor**

✓

M215 MMG340.250.C	M315 MM G340.500.C
M315 MM G340.250.C	M315 MM G340.750.C
M315 MM G340.350.C	M615 MM G320.1000.C





**Other Brand Motor**

✗





**BAFANG Hub Motor**

✓

RM G020.36V 250w.DC	RM G060.48V 750w.DC
RM G020.48V 500w.DC	RM G062.48V 1000w.DC
FM G020.500.D	RM G0900.48V 750w.DC
RM G0F0.48V 750w.DC	





**Other BAFANG Mid Drive Motor**

✗

M620 MMG510.750.C	M625 MM G321.750.C
M620 MMG510.1000.C	M625 MM G321.750.C
M225 MM G341 250.C	M625 MM G321.1000.C
M325 MM G341.500.C	M625 MM G321.1000.C



Figure 2.2: Detailed compatibility chart for Bafang motor types. Ensure your motor is listed as compatible.

## 2.2 Mounting the Display

The display is designed to fit 25.4mm or 22.2mm handlebars. Choose a suitable position on your handlebar that allows for easy viewing and access to the touch screen without obstructing your riding. Secure the display mount firmly using the provided screws.

# Specifications

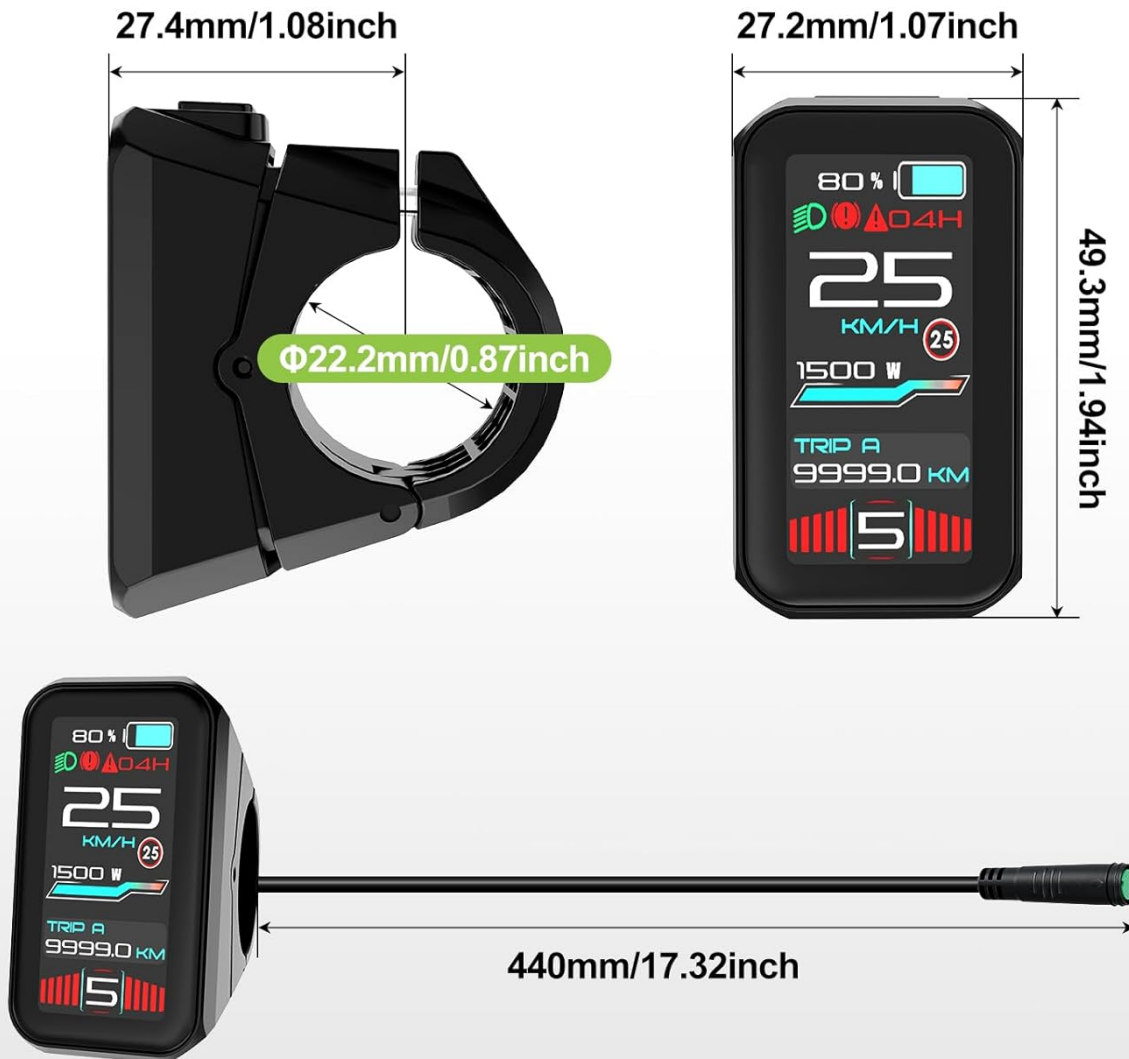


Figure 2.3: Display dimensions and handlebar mount size. Ensure your handlebar diameter is compatible.

## 2.3 Electrical Connection

Connect the display's 5-pin circular connector to the corresponding 1T4 cable on your e-bike. Ensure the connection is secure and fully seated to prevent water ingress and ensure proper communication with the motor controller.

## 3. OPERATING INSTRUCTIONS

### 3.1 Powering On/Off

To power on the display, press and hold the power button (usually located on the side or bottom of the display) for a few seconds. To power off, repeat the process. The display will typically power off automatically after a period of inactivity if configured to do so.

### 3.2 Main Interface Information

The main display screen provides essential riding data at a glance. Familiarize yourself with the layout:

# Main Interface Information



**Figure 3.1:** Main interface layout and data points. This includes battery level, current speed, assist level, power output, trip distance, and error indicators.

- **Battery/Voltage:** Indicates current battery charge level and voltage.
- **Speed Value:** Current riding speed.
- **Assist Level:** Current pedal assist level (0-9 PAS levels).
- **Power Value:** Real-time motor power output.
- **Trip A/B:** Displays trip distance or riding time.
- **Error Indicator:** Alerts to system malfunctions.
- **Headlight/Brake Indicator:** Shows status of lights and brake activation.

## 3.3 Navigating the Touch Screen

The VD18MT features a touch screen for intuitive navigation. Swipe left or right on the screen to switch between different display modes and access setting menus. Tap on icons or menu items to select them.

# Touch Screen Smart Display

Swipe left or right for easy operation to quickly switch display modes and settings menus.



Figure 3.2: Touch screen operation. Swipe gestures allow quick access to various data screens and settings.

## 3.4 Adjusting Backlight and Units

Access the settings menu by swiping or tapping. From here, you can:

- **Backlight Adjustment:** Select from 4 levels of backlight intensity to optimize visibility for day or night riding.
- **Unit Switching:** Change speed and distance units between kilometers (km) and miles (mi).
- **Wheel Size Calibration:** Input your e-bike's wheel size for accurate speed and distance readings.
- **Language Selection:** Choose from 9 available languages, including English, French, and German.



Figure 3.3: Display visibility in day and night conditions, and the brightness adjustment interface.

### 3.5 Smart App Connectivity

The display supports Bluetooth connectivity to sync with a dedicated smartphone app. This app allows you to track real-time speed, distance, battery life, and navigation data, turning your rides into data-driven adventures.

- Ensure Bluetooth is enabled on both the display (if applicable in settings) and your smartphone.
- Download and install the official Varstrom e-bike app from your device's app store.
- Follow the in-app instructions to pair your VD18MT display.

## 4. MAINTENANCE

The VD18MT display is designed for durability and features an IP67 waterproof rating, making it resistant to dust and water immersion up to 1 meter for 30 minutes. However, proper care will extend its lifespan.

# IP67 WATERPROOF



Figure 4.1: The VD18MT display is IP67 waterproof, offering protection against water and dust.

- **Cleaning:** Wipe the display screen and body with a soft, damp cloth. Avoid using abrasive cleaners or solvents that could damage the screen or casing.
- **Storage:** When not in use for extended periods, store the e-bike and display in a dry, cool place away from direct sunlight.
- **Connector Care:** Periodically check the electrical connectors for dirt or corrosion. Keep them clean and dry.
- **Avoid Impact:** While robust, avoid dropping the display or subjecting it to strong impacts.

## 5. TROUBLESHOOTING

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If you encounter issues with your VD18MT display, refer to the following common troubleshooting steps:

- **Display Not Powering On:**
  - Check if the e-bike battery is charged and turned on.
  - Ensure all electrical connections, especially the 5-pin circular connector, are securely seated.
  - Verify the display's power button is functioning correctly.

- **No Data Displayed (Speed, PAS, etc.):**

- Confirm the display is correctly connected to the motor controller via the UART protocol.
- Check for any error codes displayed on the screen and consult the main interface diagram (Figure 3.1) for interpretation.
- Ensure the wheel size is correctly calibrated in the settings.

- **Touch Screen Unresponsive:**

- Clean the screen surface to remove any dirt or moisture.
- Restart the display by powering it off and on again.
- If the issue persists, contact customer support.

- **Bluetooth Connectivity Issues:**

- Ensure Bluetooth is enabled on both the display (if applicable in settings) and your smartphone.
- Make sure the Varstrom app is updated to the latest version.
- Try unpairing and re-pairing the device in your smartphone's Bluetooth settings.

- **Compatibility Warning:**

- If you experience issues related to motor communication, double-check that your motor is a Bafang UART protocol hub motor (G020, G0900, G062) and not a CAN protocol motor. Incompatible protocols cannot be resolved with adapters.

## 6. SPECIFICATIONS

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Feature	Detail
Model	VD18MT
Brand	Varstrom
Screen Size	1.45 Inches
Display Type	TFT Color LCD
Compatibility	Bafang UART Protocol Hub Motors (G020, G062, G0900)
Voltage	24V/36V/48V/52V
Waterproof Rating	IP67
Handlebar Diameter	25.4mm / 22.2mm
Connectivity	Bluetooth (for Smart App)
Included Components	Display unit

## 7. WARRANTY INFORMATION

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The Varstrom VD18MT Ebike Display comes with a **1-year warranty** from the date of purchase. This warranty covers manufacturing defects and malfunctions under normal use. It does not cover damage resulting from misuse, accidents, unauthorized modifications, or improper installation.

Please retain your proof of purchase for warranty claims. For warranty service, contact Varstrom customer support.

## 8. CUSTOMER SUPPORT

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For further assistance, technical support, or inquiries regarding your Varstrom VD18MT Ebike Display, please refer to the official Varstrom website or contact their customer service department. Contact details can typically be found on the product packaging or the Varstrom brand store page.

**Online Resources:**

- Visit the [Varstrom Store on Amazon](#) for product information and updates.