

Koso XR-SA

Koso XR-SA Speedometer Instruction Manual

Model: XR-SA (Part Number: BB007B52)

1. INTRODUCTION

Thank you for purchasing the Koso XR-SA Speedometer. This manual provides detailed instructions for the proper installation, operation, and maintenance of your new digital speedometer. Please read this manual thoroughly before installation and use to ensure correct functionality and to prevent damage.

The Koso XR-SA Speedometer is designed for motorcycle and powersports applications, offering a clear, blue-backlit digital display for essential riding information.

2. SAFETY INFORMATION

- Always ensure the vehicle's power is disconnected before attempting any installation or wiring.
- Professional installation is recommended for optimal performance and safety. Incorrect wiring can lead to damage to the speedometer or the vehicle's electrical system.
- Secure all wiring and components to prevent interference with moving parts or exposure to extreme conditions.
- This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (Proposition 65 warning). Wash hands after handling.
- Do not attempt to disassemble or modify the speedometer unit. This will void the warranty and may cause malfunction.

3. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- Koso XR-SA Speedometer Unit
- Gauge Bracket
- Speed Sensor with Bracket
- Magnet
- Wiring Harness

- Mounting Hardware (screws, washers, Allen key)
- Basic Instruction Sheet



Figure 3.1: This image displays all components included with the Koso XR-SA Speedometer: the main speedometer unit, wiring harness, speed sensor, magnet, mounting brackets, and various installation hardware.

4. PRODUCT OVERVIEW AND DIMENSIONS

The Koso XR-SA features a clear digital display with a blue backlight, ensuring readability in various lighting conditions. It provides essential information such as speed, odometer, and trip meter readings, along with indicator lights for high beam, turn signals, and oil pressure.



Figure 4.1: A detailed view of the Koso XR-SA Speedometer's digital display, showing speed, trip, and odometer readings, along with indicator lights for high beam, turn signals, and oil pressure.

4.1. Dimensions

Refer to the diagram below for the physical dimensions of the speedometer unit.



Figure 4.2: This diagram illustrates the precise physical dimensions of the Koso XR-SA Speedometer, including its width (77.5 mm), height (74.8 mm), and depth (24 mm, with a 10 mm protrusion for mounting).

5. SETUP AND INSTALLATION

Follow these general steps for installing your Koso XR-SA Speedometer. For detailed wiring diagrams and specific vehicle instructions, please refer to the separate wiring diagram sheet included with your product.

5.1. Mounting the Speedometer

1. Select a suitable location on your vehicle's handlebars or dashboard for optimal visibility.
2. Attach the gauge bracket to the speedometer unit using the provided screws.
3. Secure the assembled unit to your chosen mounting point using the appropriate hardware. Ensure it is firmly attached and does not obstruct your view or vehicle controls.

5.2. Installing the Speed Sensor and Magnet

1. Mount the speed sensor bracket to a non-rotating part of your wheel assembly (e.g., fork leg) ensuring it is stable.
2. Attach the magnet to a rotating part of the wheel (e.g., brake rotor, wheel spoke) so that it passes directly in front of the speed sensor with each rotation.
3. Adjust the distance between the sensor and the magnet to be within the recommended range (typically 1-3mm) for accurate readings.

5.3. Wiring Connections

Connect the wiring harness to your vehicle's electrical system according to the included wiring diagram. Typical connections include:

- **Power (12V DC):** Connect to a switched 12V power source.
- **Ground:** Connect to a reliable chassis ground.
- **Ignition:** Connect to an ignition-switched power source.
- **Speed Sensor Input:** Connect the speed sensor wire.

- **Indicator Lights:** Connect wires for high beam, turn signals (left/right), and oil pressure to their respective vehicle signals.

5.4. Tire Size Adjustment

The speedometer requires calibration to your specific tire size for accurate speed and distance readings. Refer to the detailed instructions in the included basic instruction sheet for the procedure to input your tire circumference into the unit.

6. OPERATING INSTRUCTIONS

6.1. Powering On

Once properly installed and wired, the speedometer will power on with your vehicle's ignition. The blue backlight will illuminate, and the digital display will show the current speed, odometer, and trip meter readings.

6.2. Display Functions

- **Speed:** Displays current speed in MPH or KPH (0-145 MPH / 0-230 KPH).
- **Odometer (ODO):** Records the total distance traveled by the vehicle. This value is non-resettable.
- **Trip Meter (TRIP):** Records the distance traveled for a specific journey. This value can be reset.
- **Indicator Lights:** Separate lights illuminate for High Beam, Left Turn Signal, Right Turn Signal, and Oil Pressure warnings.

6.3. Resetting the Trip Meter

To reset the trip meter, locate the small button(s) on the speedometer unit (refer to the physical unit for exact button placement). With the display showing the trip meter, press and hold the designated button for approximately 3-5 seconds until the trip value resets to zero.

6.4. Switching Between MPH/KPH

The method for switching between Miles Per Hour (MPH) and Kilometers Per Hour (KPH) typically involves a specific button sequence or a setting within the initial setup menu. Consult the included basic instruction sheet for the precise steps to change the speed unit.

7. MAINTENANCE

- **Cleaning:** Use a soft, damp cloth to clean the display and housing. Avoid abrasive cleaners or solvents that could damage the plastic or screen.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.
- **Sensor/Magnet:** Inspect the speed sensor and magnet for any damage or misalignment. Ensure the gap between them remains consistent.

8. TROUBLESHOOTING

If you encounter issues with your Koso XR-SA Speedometer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display/No power	Loose power connection, blown fuse, incorrect wiring.	Check all power and ground connections. Inspect vehicle fuses. Verify wiring against the diagram.
Incorrect speed reading	Incorrect tire size setting, sensor/magnet misalignment, faulty sensor.	Recalibrate tire size. Check sensor-magnet gap and alignment. Inspect sensor for damage.
Trip meter not resetting	Button not pressed long enough, faulty button.	Ensure the reset button is held for the required duration (3-5 seconds).
Indicator lights not working	Incorrect wiring, faulty vehicle signal.	Check wiring for specific indicator lights. Verify vehicle's signal output.

9. SPECIFICATIONS

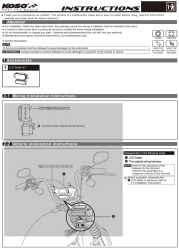
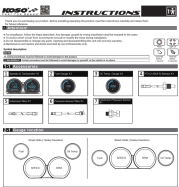

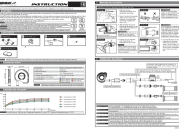
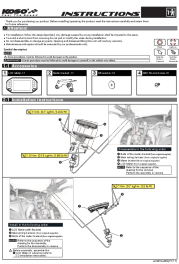
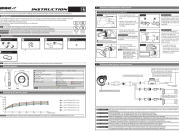
- **Model:** XR-SA
- **Part Number:** BB007B52
- **Display Type:** Digital, Blue Backlit
- **Speed Range:** 0-145 MPH (0-230 KPH)
- **Functions:** Speedometer, Odometer, Trip Meter, High Beam Indicator, Turn Signal Indicators, Oil Pressure Indicator
- **Dimensions (H x W x D):** 83.1mm x 82.28mm x 28.85mm (3.27" x 3.24" x 1.14")
- **Weight:** Approximately 1.56 pounds (0.71 kg)
- **Power Requirement:** 12V DC (typical motorcycle electrical system)

10. WARRANTY AND SUPPORT

Koso products are manufactured to high-quality standards and are covered by a manufacturer's warranty against defects in materials and workmanship. Please refer to the warranty information provided with your purchase or visit the official Koso website for details regarding warranty terms and conditions.

For technical support, troubleshooting assistance, or warranty claims, please contact your authorized Koso dealer or Koso customer service directly. Contact information can typically be found on the Koso official website or on your purchase documentation.

Related Documents - XR-SA

	<p>KOSO D2 LCD Meter Installation and Operation Manual</p> <p>Comprehensive instructions for installing and operating the KOSO D2 LCD Meter, covering wiring, vehicle installation, overview of features, settings, and troubleshooting.</p>
	<p>KOSO HD-03L Gauge Kit Installation and Operation Manual</p> <p>This manual provides detailed instructions for installing, operating, and configuring the KOSO HD-03L 4-piece gauge kit for Harley Davidson motorcycles. It covers accessories, disassembly, wiring, gauge overview, settings, and troubleshooting.</p>
	<p>KOSO Gauge 14-23 Road Glide Bezel Template and Installation Guide</p> <p>Download the KOSO Gauge 14-23 Road Glide bezel template. This guide provides instructions for printing, cutting, and marking holes for installation on your Road Glide motorcycle.</p>
	<p>KOSO Heated Grips Installation and Operation Manual</p> <p>Comprehensive guide for installing and operating KOSO heated grips for motorcycles. Includes technical specifications, mounting instructions, electrical connections, and troubleshooting.</p>
	<p>KOSO RX-4 S TFT Multi-Function Display Installation and Operation Manual</p> <p>This manual provides detailed instructions for installing, operating, and configuring the KOSO RX-4 S TFT Multi-Function Display for Yamaha MT-07 motorcycles. It covers features, specifications, button functions, settings, and troubleshooting.</p>
	<p>KOSO Heated Grips Installation and Operation Manual</p> <p>Comprehensive instruction manual for KOSO heated grips, covering installation, specifications, function settings, low-voltage mode, and troubleshooting. Ensure safe and proper use of your KOSO heated grips.</p>