

## Steelmate 986X

# Steelmate 986X Motorcycle 2-Way Alarm System with Engine Starter User Manual

Model: 986X

## 1. INTRODUCTION

Thank you for choosing the Steelmate 986X Motorcycle 2-Way Alarm System. This system is designed to provide advanced security and convenience features for your motorcycle, including anti-theft protection and remote engine starting capabilities. Please read this manual thoroughly before installation and operation to ensure proper use and to maximize the system's benefits.

## 2. PRODUCT FEATURES

- **2-Way Communication (Remote Monitoring):** The system notifies the remote control of any abnormalities detected on the motorcycle. Transmission range is approximately 150 meters, and reception range is up to 1000 meters.
- **Security/Anti-theft Function:** Features a siren and blinker alarm. An initial shock triggers a light warning sound. If a second shock is detected within 15 seconds, a full alarm activates, including a 15-second siren, blinker flashing, and engine lock. The remote control also receives a notification.
- **Engine Starter Function:** Allows remote starting of the engine, ideal for warming up the motorcycle before use.
- **Hijack Prevention Function:** Enables forced engine shutdown. Pressing the stop button will trigger an alarm after 10 seconds, followed by engine cessation.
- **High-Sensitivity Shock Sensor:** Integrated shock sensor with three adjustable sensitivity levels via the remote control.
- **Time Display and Alarm Setting:** The remote control displays the current time and supports alarm clock settings.
- **Parking Location Confirmation:** A convenient feature to help locate your motorcycle in crowded parking areas.
- **Battery Voltage Monitoring:** Provides real-time monitoring of the motorcycle's battery voltage, aiding in battery management.

- **Signal Strength Display:** The remote control indicates the signal reception strength, allowing you to confirm the effective range.
- **Two Ultra-Compact Remote Controls:** Includes two small, portable remote controls.
- **Security LED:** An integrated LED indicator for visual security status.

### 3. PACKAGE CONTENTS

---

Upon opening your Steelmate 986X system, please verify that all the following components are included:

- Control Box Main Unit (Daily waterproof specification)
- Alarm Unit (Siren)
- Remote Controls (2 units, with built-in rechargeable lithium batteries)
- USB Charging Cable
- Wiring Harness (1 set)
- Japanese Instruction Manual (This document is an English translation/summary)



Image: A complete view of all Steelmate 986X alarm system components: the main control unit, siren, two remote controls, USB charging cable, wiring harness, and fuses.

### 4. SPECIFICATIONS

---

Parameter	Value
Purpose	Anti-theft, Engine Starter Function
System Weight (Main Unit + Parts)	0.7 KG
Remote Control Weight (per unit)	30 G
Control Box Dimensions (L*W*H)	7.5 x 6.5 x 2 CM
Remote Control Dimensions (L*W*H)	7 x 3.5 x 1 CM
Operating Voltage	12V $\pm$ 2V
Standby Current	< 20mA
Siren Output	120dB
Maximum Receive Range	1000 meters

## 5. SETUP AND INSTALLATION

Installation of the Steelmate 986X system requires electrical knowledge and should ideally be performed by a qualified professional. Incorrect installation can lead to damage to the system or your motorcycle's electrical components.

### 5.1 Component Identification

Familiarize yourself with the main components:

- **Control Box:** The central processing unit of the alarm system.
- **Siren:** Produces the alarm sound.
- **Remote Controls:** Used to operate the system.
- **Wiring Harness:** Connects the components to the motorcycle's electrical system.
- **Security LED:** Visual indicator for system status.

### 5.2 Wiring Diagram Overview

The following diagram illustrates the general wiring connections for the 986X system. Refer to this diagram carefully during installation.



Image: Detailed wiring diagram for the Steelmate 986X Motorcycle Alarm System, showing connections to the AC ECU, engine key, 12V battery, LED, siren, and blinkers.

### 5.3 General Installation Steps (Consult a Professional)

1. **Disconnect Battery:** Always disconnect the motorcycle's battery before beginning any electrical work.
2. **Mount Control Box:** Securely mount the main control box in a hidden, dry location on the motorcycle. Ensure it is protected from water and excessive vibration.
3. **Mount Siren:** Install the siren in a location where its sound will not be muffled and is difficult for unauthorized individuals to access.
4. **Connect Power:** Connect the main power wires (red for positive, black for negative) from the control box to

the motorcycle's 12V battery.

5. **Connect Ignition:** Connect the ignition wire (e.g., orange) to the motorcycle's ignition circuit. This is crucial for the engine start and engine lock functions.
6. **Connect Blinker Wires:** Connect the blinker wires (e.g., yellow) to the motorcycle's left and right turn signal circuits.
7. **Connect Security LED:** Install the security LED in a visible location to deter potential thieves.
8. **Connect Engine Start/Kill Wires:** Carefully connect the engine start and kill wires according to the diagram and your motorcycle's specific wiring. This may involve cutting existing wires (e.g., gray ignition code wire).
9. **Secure Wiring:** Route and secure all wiring to prevent chafing, pinching, or interference with moving parts.
10. **Reconnect Battery and Test:** Once all connections are made and secured, reconnect the motorcycle battery and perform a thorough test of all alarm functions.

## 6. OPERATING INSTRUCTIONS

---

The Steelmate 986X system is operated primarily via its two-way remote controls.



*Image: A pair of Steelmate 986X two-way remote controls, featuring an LCD screen and control buttons, attached to metal keychains.*

### 6.1 Remote Control Overview



Each remote control features an LCD screen and several buttons for various functions.



*Image: A Steelmate 986X remote control held in a hand, displaying information such as battery voltage (15.5V), time (17:45), and signal strength on its LCD screen.*

## 6.2 Basic Operations

- **Arming the Alarm:** Press the **Lock** button once. The system will arm, and the security LED will flash. The remote will confirm with an audible tone and display.
- **Disarming the Alarm:** Press the **Unlock** button once. The system will disarm, and the security LED will turn off. The remote will confirm.
- **Remote Engine Start:** Press and hold the **Engine Start** button (often depicted with a lightning bolt or engine

icon) for a few seconds. The motorcycle engine will start.

- **Remote Engine Stop:** While the engine is running via remote start, press the **Engine Stop** button (often depicted with a stop sign or power icon).
- **Parking Location Confirmation:** Press the **Horn/Locate** button (often depicted with a horn icon) once. The motorcycle's siren will chirp and blinkers will flash, helping you locate it.
- **Shock Sensor Sensitivity Adjustment:** Refer to the detailed instructions in the original manual for specific button combinations to adjust the 3-level shock sensor sensitivity. This is typically done while the alarm is disarmed.
- **Hijack Prevention:** In an emergency, press and hold the **Stop** button on the remote. After approximately 10 seconds, the alarm will sound, and the engine will be forced to stop.

### 6.3 Remote Control Display Information

The LCD screen on the remote control provides important status information:

- **Battery Voltage:** Displays the motorcycle's current battery voltage.
- **Time:** Shows the current time.
- **Signal Strength:** Indicates the strength of the signal received from the motorcycle.
- **Alarm Status:** Icons will indicate if the alarm is armed, triggered, or disarmed.
- **Shock Indicator:** Shows if a shock has been detected.

## 7. MAINTENANCE

- **Remote Control Battery:** The remote controls have built-in rechargeable lithium batteries. Recharge them using the provided USB cable when the battery indicator on the remote shows low power.
- **System Cleaning:** Keep the main control unit and siren clean and free from dirt or debris. Avoid using harsh chemicals.
- **Wiring Inspection:** Periodically check all wiring connections for signs of wear, corrosion, or looseness. Ensure all connections are secure.
- **Water Exposure:** While the control box is daily waterproof, avoid direct high-pressure water spray on any components, especially the siren and remote controls.

## 8. TROUBLESHOOTING

If you encounter issues with your Steelmate 986X system, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Alarm does not arm/disarm.	Remote control battery low; out of range; system power issue.	Recharge remote battery; move closer to motorcycle; check motorcycle battery and system wiring.
Engine start function not working.	Incorrect wiring; motorcycle in gear; low motorcycle battery.	Verify wiring connections (especially ignition and engine start wires); ensure motorcycle is in neutral; check motorcycle battery voltage.

Alarm triggers too easily or not at all.	Shock sensor sensitivity incorrectly set.	Adjust shock sensor sensitivity via the remote control.
Remote control display is blank.	Remote control battery is dead.	Recharge the remote control battery using the USB cable.
Poor signal reception on remote.	Obstructions; excessive distance; interference.	Move to an open area; reduce distance to motorcycle; avoid areas with high electromagnetic interference.

If you are unable to resolve an issue after consulting this section, please contact your dealer or a qualified service technician.

## 9. SAFETY INFORMATION

- Always ensure the motorcycle is in neutral before attempting remote engine start.
- Do not attempt to install the system if you are not familiar with motorcycle electrical systems. Seek professional installation.
- Keep remote controls away from children.
- Do not disassemble or modify the system components. This may void your warranty and cause damage.
- Ensure all wiring is properly insulated and secured to prevent short circuits or electrical hazards.

