

# OPERATING MANUAL

Alarm System TG 400  
Order No. 80504



## Introduction

The alarm system TG 400 is used for the protection against unauthorized use of the vehicle in which the alarm system is installed.

The alarm system can be operated using one of the two remote controls.

If the alarm system is armed, jerky vehicle movement triggers the built-in vibration sensor initially only with a pre-alarm. A short warning tone sounds. If another vibration is detected within 30 seconds, a loud siren will be activated for about 25 seconds.

A 9V battery in the casing of the alarm system serves as an emergency power supply for the alarm in case the power supply to the 12V vehicle battery is disconnected.

## Notes

### Warning

- ⚠ In order to prevent the risk of a short circuit or malfunctions, you should protect the device against moisture. It is forbidden to open the device! (Except the battery compartment.)

### Waste Electrical and Electronic Equipment Ordinance

- ♻ All electrical and electronic equipment must be disposed of separately from regular household waste at the designated places. If there is a symbol showing a crossed out waste bin on a product, this product is subject to the European Directive 2002/96/EC. The appropriate disposal and separate collection of waste equipment serve to prevent potential damage to the environment and to health. They are a prerequisite for the re-use and recycling of used electrical and electronic equipment. Further information on the disposal of your waste equipment is available from your municipality, your waste disposal company or the specialized dealer who sold you the product.

## Scope of Supply

The scope of supply for the Alarm System TG 400 includes:

- 1 x central unit with integrated siren
- 2 x remote controls
- 1 x 9V battery
- 1 x set of connection cables
- 1 x operating manual

## Choosing the Place of Installation

- Choose a place in your vehicle which is splash-proof and inaccessible to unauthorized persons for the installation of the central unit.
- Avoid using places with the following sources of interference:
  - Splashing/condensation water
  - Strong vibrations
  - Heat (motor, exhaust, etc.)
  - Proximity to high voltage sources (e.g. ignition)
- Make sure to keep the upper side of the alarm system free of any objects. This is where the siren is located.
- Make sure that you can still easily reach the battery compartment of the central unit after the installation.

## Installation

If you do not have basic knowledge in the field of electronics, have the alarm system installed and connected in a specialist workshop.

- Disconnect the negative pole of the vehicle battery.
- Insert the 9V battery into the central unit. Polarity must be observed.
- Fixate the central unit with the screws or the Velcro tapes so that the cables of the cable harness point (obliquely) downwards. (reduces moisture penetration)

- Attach the red pushbutton of the cable harness at a place inaccessible to unauthorized persons (drill hole diameter 6.5 mm).
- Connect the thick red cable, which has a fuse holder (fuse type Ø 6x30 mm, 2 A), with the positive pole of your 12V battery.
- Connect the thick black cable to ground or the negative pole of your 12V battery.
- Connect the white 6-pole connector (female) of the cable harness with the white 6-pole socket (male) of the alarm system.
- Connect the small black connector (female) of the pushbutton with the small black socket (male) of the cable harness.
- The green cable from the central unit is the antenna. It must not be cut. Lay the cable at an inaccessible place and so that it runs as perpendicular as possible. Do not lay it directly to the frame or metal objects.
- The orange and the red cables are used to connect a GSM module from the M+S accessories program. If you do not connect the module, roll up the cables and insulate the ends with electrical tape.
- Lay all cables without bending them and prevent abrasion.
- Reconnect the negative pole of the vehicle battery.
- Push the red button on the cable harness in order to switch the alarm system to ready-to-operate.

### Note:

- ⚠ The two thick cables (red and black) must always be connected to ensure that the alarm system works. The connection of the rest of the cables is not necessary. However, some of the functions of the alarm system will not be working if those cables are not connected.

Insulate unused wires and connectors to prevent malfunctions or short-circuits. In case of an incorrect connection, the miniature fuse integrated in the fuse holder of the cable harness can be destroyed. It must be replaced with a fuse of the same type (Ø 6x30 mm, 2A inert) after troubleshooting.

## Using the Alarm System

### 1. Arming the Alarm System

- Push button A "ON" on the handheld transmitter.
- A short acoustic signal will then play. After about 3 seconds, the alarm system will be armed and ready.

### 2. Disarming the Alarm System:

- Push button B "OFF" on the handheld transmitter.
- Two short acoustic signals will then play. The alarm system is disarmed.

### 3. Triggering the Panic Alarm:

- Push button C "PANIC" on the handheld transmitter.
  - The alarm signal will play for about 6 seconds.
- Before the end of the maximum alarm duration, the alarm signal can be switched off by pushing the button B "OFF".

### 4. Activating the "Power Save Mode":

- Disarm the alarm system by pushing button B "OFF" on the handheld transmitter
- Push the buttons B and D on the handheld transmitter simultaneously. → Three short acoustic signals will then play. The alarm system is now in the "Power Save Mode" and does not consume power. The alarm function is switched off!
- Check the "Power Save Mode" by pushing button A "ON" on the handheld transmitter → There must be no acoustic signal. The alarm system can not be armed anymore.

### 5. Waking up from the "Power Save Mode":

- Push the red button on the cable harness of the alarm system. → Two short acoustic signals will then play.
- Check the waking up from the "Power Save Mode" by pushing button A "ON" on the handheld transmitter → There must be one acoustic signal. The alarm system is now armed.

## Overview of the Alarm System's Power Consumption

Mode	Description	Power consumption
Alarm system armed	The device is switched ON and responds to all transmitted commands. Theft protection is switched ON.	approx. 4 mA The vehicle should be driven within a period of 2 weeks or be connected to a battery charging device. *
Alarm system disarmed	The device is switched ON and responds to all transmitted commands. Theft protection is switched OFF.	approx. 4 mA The vehicle should be driven within a period of 2 weeks or be connected to a battery charging device. *
Power Save Mode	The device is switched OFF and does not respond to transmitted commands. Sabotage protection is switched OFF.	0 mA The vehicle can stay parked during winter.

\*Period depends on the battery capacity

### Note:

- ⚠ Please note that other electrical users (e.g. car clock or computer) can also drain the battery. Under these circumstances, the time until battery depletion can be significantly shorter!

## Adjusting the Sensitivity

### Note:

- Adjusting the sensitivity of the alarm system is carried out by transmitting commands from one of the two remote controls to the central unit.
- The sensitivity can be adjusted at 8 levels.
- The default setting is level 8 = highest sensitivity

- Disarm the alarm system by pushing button B "OFF" on the handheld transmitter.
- Push the buttons A and B on the handheld transmitter simultaneously. → Two short acoustic signals will then play.
- Push button A on the handheld transmitter within 5 seconds. → Two short acoustic signals will then play. This means that the sensitivity is set to level 8, the highest level.
- Push button A again within 5 seconds and level 7, the next lower level of sensitivity, will be set. → After every push, a short acoustic signal is played for confirmation.
- Push button A within 5 seconds as often as you need to set the desired sensitivity level.
- Save the desired sensitivity by pushing button B on the handheld transmitter or wait 5 seconds after the last entry. The last level will then automatically be saved. → Two short acoustic signals will be played for confirmation.

### Note:

- ⚠ If you adjusted the sensitivity to the lowest level 1 (=minimum sensitivity) and push button A again, the sensitivity will be readjusted to the highest level 8 (=maximum sensitivity). → Two short acoustic signals will be played for confirmation.
- If both the 12V power supply to the central unit and the connection to the 9V battery are interrupted, the saved sensitivity level will be erased. The saved sensitivity level will also be erased when the "Power Save Mode" has been activated. In both cases, the sensitivity must be reprogrammed afterwards!

## Battery Change

In order to ensure the protection of your alarm system from manipulation, we recommend that you change the 9V battery once a year.



Troubleshooting	
Problem	Solution
Alarm system does not respond to handheld transmitter	<ul style="list-style-type: none"> <li>- Check the correct connection of the cables</li> <li>- Check the fuse in the cable harness</li> <li>- Push the red button to wake the alarm system up from Power Save Mode</li> <li>- Change the battery of the handheld transmitter</li> </ul>
Alarm system causes false alarms	<ul style="list-style-type: none"> <li>- Check the place of installation – increase the distance to the ignition system</li> <li>- Suppress ignition system interference – (ignition cable and spark plug sockets)</li> </ul>
Handheld transmitter reach is too short	<ul style="list-style-type: none"> <li>- Battery in the handheld transmitter is weak (red LED on the handheld transmitter does not light up when pushing a button) – change battery</li> <li>- Relocate the green antenna cable</li> </ul>
Handheld transmitter is lost or defective	<ul style="list-style-type: none"> <li>- Buy a replacement handheld transmitter via the Internet on <a href="http://www.m-u-s.com">www.m-u-s.com</a></li> </ul>

**Note:**  
 • The handheld transmitters are only partly splash-proof; thus, you should always protect them against moisture.

**Service address:**

M+S Solution GmbH  
 Our current address and telephone number can be found on the Internet: [www.m-u-s.com](http://www.m-u-s.com).

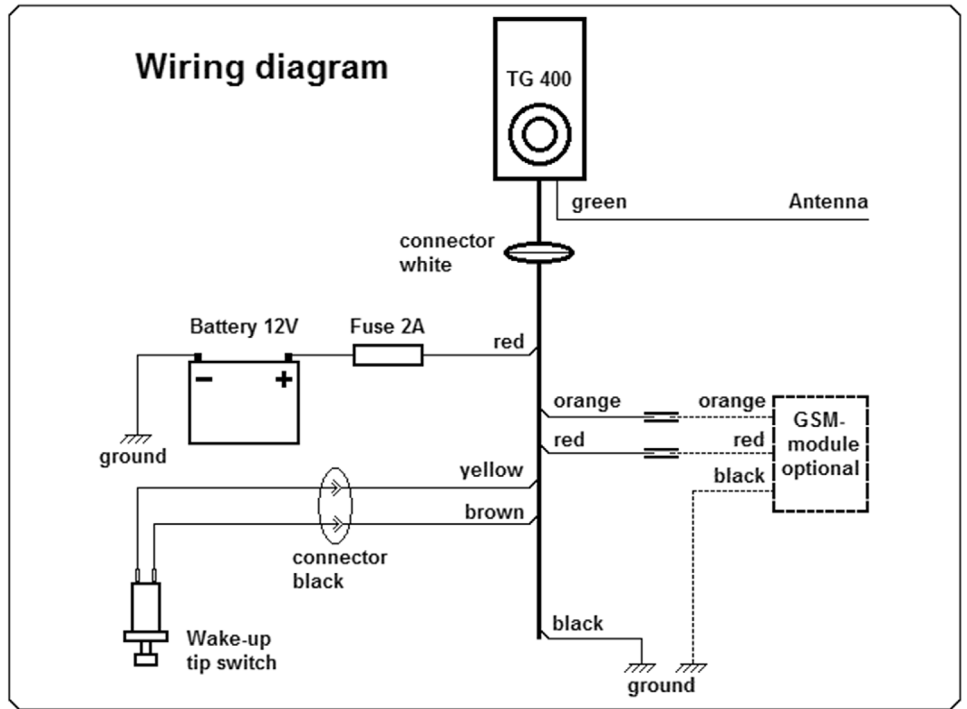
**Declaration of Conformity**

**CE** This product fulfils the requirements of the EC Directive 1999/5/EC as well as the requirements for the CE mark for use in a vehicle – EU Directive 2004/108/EC and 2002/95/EC (RoHS) on the restriction of the use of certain hazardous substances. The declaration of conformity can be viewed on: [www.m-u-s.com](http://www.m-u-s.com)

**Specifications**

Operating voltage:	12 V by vehicle electrical system
Power consumption (Power Save Mode/armed-disarmed/ alarm):	0 / 4 / 150 mA
Dimensions (central unit):	107 x 57 x 31 mm
Siren volume:	approx. 110 dB/1m
Connection cables' length:	1.2 m
Handheld transmitter reach:	approx. 10 m
Central unit fuse:	2 A, inert, Ø 6x30 mm
Frequency range:	433 MHz
Battery for emergency power supply:	9V battery
Battery for handheld transmitters:	Type 23A, 12V
Tests:	E, CE

**Connection Diagram**



**Limited Warranty in Europe**

Please note that this Limited Warranty does not have an influence on the legal rights you are entitled to by the applicable law related to the sale of consumer goods. The M+S Solution GmbH ("M+S") grants you, the buyer of the M+S product ("product") which is to be found in the sales package, the following Limited Warranty.

**Limited Warranty**

Within the warranty period, material, construction or production defects will be repaired within an economically reasonable period and free of charge by M+S or a customer service centre authorized by M+S. Should M+S consider it necessary at its own discretion, the product will be replaced. The warranty will be executed in accordance with the conditions of this Limited Warranty, unless mandatory statutory regulations provide otherwise. This Limited Warranty is only valid and enforceable in the country where the product has been purchased and requires that the M+S product was also intended to be sold in this country. Should you have bought the product in a member state of the European Union or in Switzerland and should this product have been intended by M+S for sale in one of these countries, this Limited Warranty is valid and enforceable in all of the abovementioned countries. Some limitations of the warranty service can arise due to country-specific product components.

**Warranty Period**

The warranty period begins with the date on which the product has first been purchased by an end customer. The product can consist of several individual parts for which different warranty periods (hereafter referred to as "warranty period") can apply. The different warranty periods are:

- Twenty-four (24) months for all products and accessories (regardless of whether the accessories have been included in the sales package or bought separately) except for the wearing parts and accessories which fall under (c);
- Sixty (60) months for charging devices make M+S except for the wearing parts and accessories which fall under (c);
- Thirty (30) days for the following wearing parts and accessories: batteries, rechargeable batteries, manuals and covers

The warranty period will neither be extended nor does it start again or is influenced otherwise by any subsequent resale, repair measures authorized by M+S or by replacement of the product. Independent of the aforementioned restrictions, parts which have been repaired or replaced during the warranty period will be granted with a warranty period of sixty (60) days from the time of repair or replacement or with the rest of the warranty period existing for the original product depending on whichever warranty period is longer.

**How can you make use of the warranty service?**

If you want to assert a claim in accordance with this Limited Warranty, please take the product or the defective part of the product (in case it does not concern the whole product) to a retail outlet authorized by M+S. You can also call M+S (national telephone charges or charges for value-added services may apply) in order to gather more information on how to assert your claim. For every assertion of claims in accordance with this Limited Warranty, you have to inform M+S or a customer service point or retail outlet authorized by M+S within a reasonable period of time after you discovered the supposed defect, however, in any case before the end of the warranty period. If you want to assert a claim from the Limited Warranty, you have to present the following:

- the product (or the affected part) and
- the original proof of purchase which clearly states the name and address of the seller, the date and place of purchase and the product type.

**Note:**

Your product is a technically elaborate, electronic device. M+S is strongly urging you to familiarize yourself with the operating manual and instructions which have been delivered for and together with the product..

**Impressum**

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 All rights reserved. This operating manual is subject to copyright.  
 It is subject to technical and optical modifications.  
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