



ERWIN SATTLER
MÜNCHEN

TROJA 16 M II

Precision pendulum clock with,
16 extendible watch winders and safe



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The Troja is delivered packed in one box

List of contents

- ✓ Upper part of the case with movement (in the following referred to as the 'clock')
- ✓ Lower part with transport lock (in the following referred to as the 'base')
- ✓ Movement
- ✓ 4 x movement holding screws
- ✓ Suspension spring
- ✓ Pendulum
- ✓ Rope pulley
- ✓ Weight
- ✓ Special tool with 2 pins
- ✓ 6 x connecting screws
- ✓ Wall mounting bracket
- ✓ Power cable
- ✓ Winding crank
- ✓ Tweezers
- ✓ Adjustment pin
- ✓ Set of adjustment weights
- ✓ Cover glass for set of adjustment weights
- ✓ Pendulum tip protector
- ✓ Pair of white gloves
- ✓ Safe
- ✓ Set of Alcantara inserts
- ✓ Safe insert
- ✓ Safe insert strip
- ✓ 3 x screws 12 x 120 mm, for wall mounting the safe
- ✓ 2 x screws 12 x 200 mm, for floor mounting the safe
- ✓ 1 x wall plug 10 mm and 5 x wall plugs 12 mm wall
- ✓ Remote control with fingerprint reader
- ✓ Remote control for the ambient lighting
- ✓ Magnetic LED strips for the base
- ✓ 16 x watch holders
- ✓ 8 x watch cushions
- ✓ QR code card with instructions for use

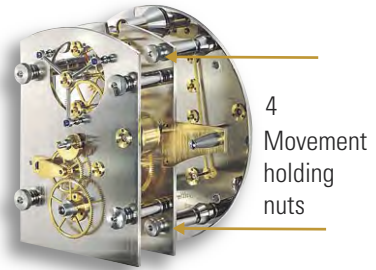
Setting up the clock

Unpacking and assembling the case parts and the safe

- a. Open all the locking bolts on the box and remove the lid and the side panels.
- b. Take out the clock and place it in the same position on a sturdy table.
- c. Open the safe door (Code = 123456)
- d. Loosen the screws at the base and on the rear wall between the safe and the box (tools = 17 mm and 19 mm wrench) and let them drop out.
- e. Remove the safe from the box by pulling it forwards and place it at the Troja's final installation location.
- f. Remove the base and the safe insert (drawer unit) from the box.
- g. To unpack, unscrew the plate (transport lock) at the bottom. It is essential to screw the screw-in feet back into the base; these will be needed later to align the Troja.
- h. Unpack the clock and set it up. Place it on a padded surface to protect it from damage.
Please note: The movement will be removed at a later stage!
- i. Place the clock on the base.
- j. Align the clock on the base so that the top section is flush at the back and the overhang is even on both the left and right sides. Secure it from below using the 6 screws provided.
- k. Unscrew the two covers. (Torx 10 screwdriver)
- l. Plug the two connectors on the back of the lower part of the case into the corresponding sockets on the upper part of the case.
- m. Screw the two covers back on.
- n. Plug the Troja's main plug into the socket.
- o. Open the door of the base. This makes the Troja much easier to carry. Open the drawer and hold down the left-hand button until you hear the lock release and open. If necessary, press the door shut whilst holding down the button to relieve pressure on the locking mechanism.
- p. Slide the entire case over the safe.
- q. Use the adjustable feet to position the case so that it stands upright and lies flush against the wall. If necessary, level it further using the 6 adjustable black knurled screws on the rear of the case.

Take out the movement

Unscrew the four knurled movement holding nuts, pull the movement up to the front out of the case and put it carefully down on an even and firm underground with the dial downwards.



Fixing the Troja case and the safe to the wall/floor

- Unscrew the cover of the movement plate using the special tool provided, with its two pins.
- The aligned Troja case should fit flush against the wall above the spacer tube. Accordingly, unscrew the tube at the rear until it sits flush against the wall. The tube can be turned from the front using the special tool provided.
- Check the final position in the room before fitting!
- The case must be fixed to the wall as follows:
Mark the drilling position for the clock on the wall using the tip of the special tool. If the safe is to be bolted to the wall and/or the floor, the necessary drill holes can also be marked and drilled at this point.

Before drilling, check for any cables or pipes running through the wall or floor!

Move the case and safe aside and drill the necessary holes:

- Hole for the supplied wall plug for the case = 10 mm
 - Hole for the supplied wall plugs for the safe = 14 mm
 - Insert the wall plugs.
- Return the case and safe to their positions and secure them with the screws provided. Check the alignment!
 - Finally, slide the magnetic protective strip onto the base.
 - Check all electronic functions!
 - Fit the cover to the movement plate.

Insert the drawer unit into the safe

- Unpack the black drawer unit and place it inside the safe. To do this, the Alcantara cover must be removed from the safe. Position the drawer unit right at the back and to the left. Fit the enclosed cover to the right-hand side of the drawer unit. The cover is held in place by magnets.
- Refit the Alcantara cover. Check that the bolts can close properly. If necessary, adjust the position of the side and bottom Alcantara cover.

Caution!

With the clock, there is a protecting cover that has to be laid inside the bottom of the case! The cover has to be used, to avoid damages of the case! Please remove the cover only after the installation is complete!

How to hang in the pendulum

Remove the pendulum and accessories from under the double bottom and unpack them carefully!

Caution!

Do always hold or carry the pendulum at the free pendulum rod, never at the adjustingtable or the plate of the barometric-instrument.

Since the movement is already removed, the nickel-plated protection tube can be pulled off from the suspension spring block (located between the two upper movement holding pillars).

Remove the suspension spring and keep in reach. Now unscrew the protection cap from the tip of the pendulum. To avoid damage of the delicate suspension spring we recommend to insert it into the slot of the pendulum rod first, hold it in place and then hang the pendulum together with the suspension spring into the suspension spring block.



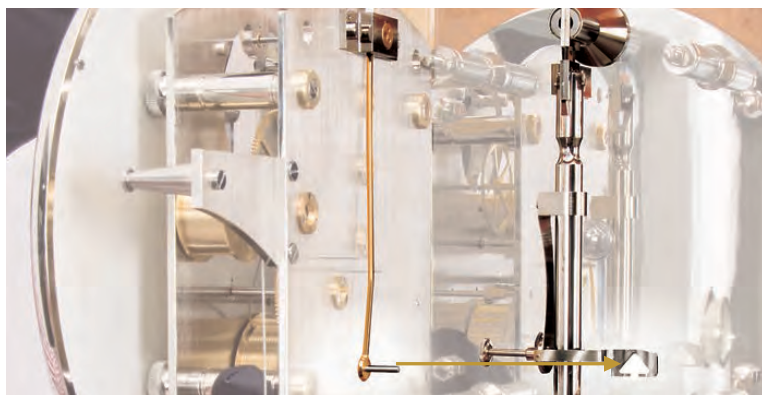
Push back the protection tube on the suspension spring block. By turning the nuts at the sides of the pendulum scale you can adjust the pendulum scale in a position that the tip of the pendulum points exactly to »0«.

How to fit in the movement

Remove the transport protection of the escapement lever.

Push the movement on the 4 pillars and screw it down with the four knurled nuts. So that motion can be transmitted from the movement to the pendulum, the driving pin of the pallet lever must be inserted in the triangular cut-out in the safety flap on the beat adjuster.

To do so, reach behind the movement from the side, carefully press the lever with the cut-out backwards and upwards until the driving pin slots into the triangular cut-out.



How to set the barometer hand

The scale of the barometer does not correspond to the display of changes of pressure measured in hectopascal, as is nowadays the case with barometers. The scale does rather display the changes of pressure, as it was formerly done, in millimetre mercury column. When the pressure at the destination of the clock is "normal" adjust the display by setting the hand of the barometer to zero by turning the knurled-head screw above the aneroid boxes. You can now read the reactions of the barometer to changes of pressure as follows:

High pressure is displayed in the upper half of the scale, in the "positive" range, low pressure is displayed in the lower half of the scale, in the "negative" range. If the pressure increases the period of oscillation of the pendulum lengthens, thus the clock is slow. By the compression of the aneroid boxes however, the weight located on them sinks towards the centre of the pendulum, resulting in the acceleration of the pendulum. The change in speed caused by the change of pressure is thus compensated.

How to start the clock

The steel cable must be threaded as shown in Figures 1 and 2. The loop at the end of the steel cable is then hooked into the cable pillar as shown in Figure 3.





When hanging the weight in the pulley, please make sure that the steel cable is properly seated in the groove of the pulley in each case and the foremost groove of the barrel wheel. Then hang the weight in the bow of the rope pulley without bending the steel cable.

Using the crank, the clock is wound up one revolution in anti-clockwise direction. While precisely observing the tip of the pendulum and the scale, you now very slowly deflect the pendulum sideways until – brought about by the escape wheel falling against the pallet lever – a »tick« is heard. You must then make a note of the number of angular minutes shown on the scale precisely at the point the tick is heard.

Then you deflect the pendulum to the other side until you hear the »tock«. Ideally this should occur at the same number of minutes on the scale in the other direction. If, for example, the pendulum has to be deflected further to the right for the tick to be heard than to the left, you can correct this by turning the adjuster screw on the pendulum rod behind the movement clockwise.

Stop winding the clock, when the top end of the pulley is about 1 cm below the dial ring.

How to set the time

When setting the time, the minute hand may be turned only clockwise. The second hand shall not be turned. In order to synchronise the second hand to that of another clock (e.g. a radio clock) stop the pendulum when the second hand has reached the mark of the sixtieth second. Let the pendulum go when the second hand of the clock of comparison reaches the sixtieth second.

How to adjust the accuracy

The clock has been exactly adjusted in our workshop. Transport and variations of the geographical height can however lead to a change of the period of oscillation of the pendulum. It will thus in most cases be necessary to adjust your clock anew.

Adjust your clock as follows:

a) Coarse adjustment:

Should the accuracy deviate by more than one second per day it is necessary to adjust the clock by the adjusting nut.

Please stop the pendulum first. Now put the regulation pin enclosed in the case into the hole below the lock nut in the pendulum rod to avoid a twisting of the suspension spring during adjustment.

Loosen the lower nut, the lock nut, and then screw the adjusting nut one line to the left per second gained per day, i.e. one line to the right per second lost per day. Afterwards screw the counter nut slightly up again.

After having watched the accuracy a couple of days you may readjust the clock as described above



b) Precision adjustment:

For precision adjustment of the clock, i.e. for the correction of small deviations of accuracy, you don't need to stop the pendulum.

Precision adjustment is done by means of the timing weights in the case. Place them on the adjusting-table situated at the middle of the pendulum rod.

The heavier the timing weight, the greater the acceleration of the pendulum, i.e. the faster runs the clock.

By taking away a timing weight, the period of oscillation of the pendulum is lengthened, i.e. the clock goes slower.

If you need even finer tuned weights for fine adjustment, you will find in our range of accessories a sorted set of 12 certificated weights

c) How to correct deviations of 1 - 2 seconds from standard time:

You can correct deviations of 1 - 2 seconds from standard time with the aid of the two stainless steel regulation weights also enclosed in the case. You neither need to stop the pendulum, nor the second hand. One of the weights should thus always be located on the adjusting table. In case the second hand deviates approx. minus 1 second from standard time, place the second weight onto the adjusting table as well. As soon as the deviation is recovered, take the weight off again.

A deviation of approx. plus 1 second shall be corrected by occasionally taking away the weight permanently located on the adjusting table.

Due to the fact that every place on earth has a different gravitation, a clock that runs +/- 0 sec in Munich/Germany will gain or lose time if it is located somewhere else.

As an example see the list below:

Place	Gravitation g in cms^{-2}	Fast in sec./day	Slow in sec./day
Bangkok	978,321		106,2
Berlin	981,288	24,4	
Budapest	980,852	5,2	
Bukarest	980,554		7,9
Göttingen	981,176	19,5	
Hamburg	981,375	28,2	
Madrid	979,981		33,1
Munich	980,733	0	0
Nürnberg	980,942	9,2	
Rome	980,347		17,0
St. Petersburg	981,925	52,5	
Stockholm	981,843	48,8	
Stuttgart	980,901	7,4	
Tokyo	979,805		40,9

Built-in drawer for accessories

With the door fully open, pull the drawer forwards as far as it will go, using the stainless steel inlays. The accessories are in place as shown.

1. Tweezers
2. Regulation pin
3. Regulation weights
4. Timing weights
5. Crank



Technical specifications

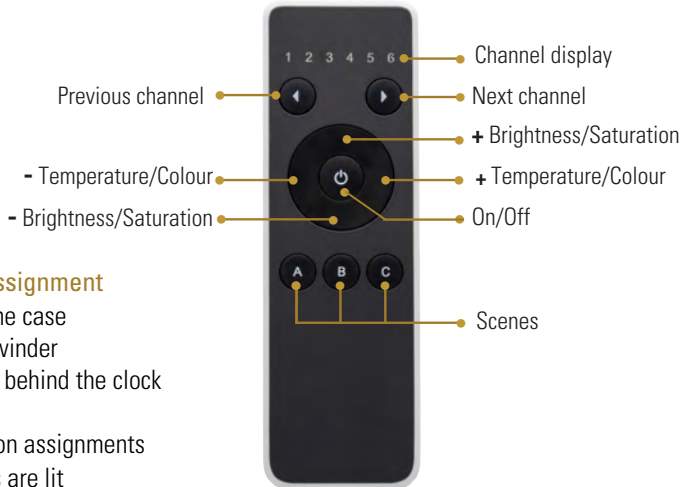
Precision pendulum clock – Cal. 1965

- Plates of 4 mm thick, rolled brass
- Nuts of stainless steel
- Main wheel and guide pulley running in ball-bearings – altogether 5 precision ball bearings
- Gears and anchor mounted in 11 jewel bearings, in gold plated, screwed chatons
- Pinions with high number of teeth (12 and 20) of hardened steel, polished
- Gears finely crossed out, milled, precision-ground, bevelled and gold-plated
- Graham escapement with improved transmission system
- Gold-plated escapement lever
- Agate pallets
- Suspension spring of rolled spring stainless steel
- Pendulum rod of heat treated super invar
- Pendulum weight turned of solid brass, nickel-plated
- Temperature compensation
- Barometric-error compensation with 5 aneroid boxes
- Adjusting-table
- Top plate of 6 mm thick brass, nickel-plated
- Rope pulley polished and nickel-plated, mounted in a jewel bearing
- Weight in nickel-plated brass tube, 3100g
- Blue steel hands, hand-domed
- Dial engraved, silver-plated and printed
- Bezel turned of solid brass, nickel-plated or gold-plated
- Winding period of 4 weeks
- Achievable accuracy: under optimal conditions- deviation of less than 1-2 sec. / month possible
- Clock case of solid fine wood with metal inlays
- 4 bevelled crystal glass plates
- Beat rate 3600 per hour

Technical data case

- Height: 219.5 cm, width: 45.5 cm (watch winder extended: 70 cm), depth: 50 cm
- Requires wall mounting at the dial height
- Door with magnetic closure
- Power supply: Operating voltage: 110–230 V
Power frequency: 50/60 Hz
- Use only original power adapters

Remote control for LED lighting



Channel assignment

1. Inside the case
2. Watch winder
3. Lighting behind the clock
4. Safe
5. No button assignments
6. All LEDs are lit

The following functions are available

Change brightness/colour saturation

You can adjust the brightness by holding down the 'Up' and 'Down' buttons. Pressing 'Up' increases the brightness, whilst pressing 'Down' decreases it until the light switches off.

To adjust the colour saturation, press and hold the 'Up' button twice to increase the colour saturation. If you press and hold the 'Down' button twice, the colour saturation will decrease.

Change colour temperature/colour tone

You can change the colour temperature by holding down the 'Left' and 'Right' buttons. Pressing 'Right' sets a colder colour temperature, whilst pressing 'Left' sets a warmer one.

Scenes

You can use the scene buttons A, B and C to save and recall three personalised scenes.

Accessing saved scenes

Press button A, B or C to call up a scene that has previously been saved for that button.

Save new scenes

If you press and hold a scene button for more than 2 seconds, the current lighting settings will be saved to that button.

Starting up your Troja 16 M II watch winder

Please plug in the power supply. The Troja 16 M II will start automatically.

The intelligent control system of the Troja 16 M II is pre-programmed to reliably and gently wind more than 80% of all automatic movements, without the need for any further settings.

If you desire to optimize the settings for your watch, you can do so by using the software »Smart interface«. How to use the software is described in chapter »Manual for software smart interface« .

The intelligent control of the Erwin Sattler watch winders runs an active phase and sleeping phase.

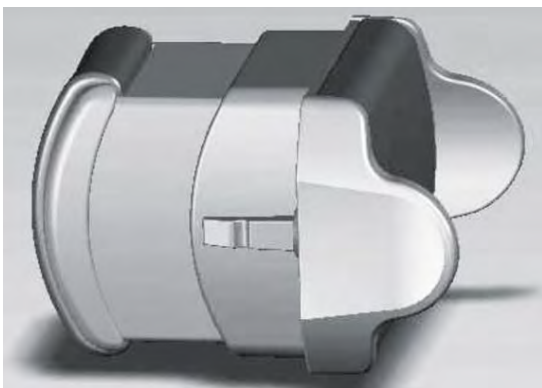
If you start up the Troja 16 M II (connect it to the power supply) for the first time at 8.00 a.m., for example, the watch winder begins moving at 8.00 a.m. every day.

From this point onwards, the watch winder units will operate daily from 8 a.m. to midnight, followed by an eight-hour rest period. During this rest phase, the mainspring in the wristwatch is slackened to allow the watch to function in an optimum operating range.

Inserting watches

Before inserting the wristwatches, please make sure that the motor is stopped. Now you can place the watch on its watch holder.

To remove the watch from the watch winder unit, grab the watch holder at both levers and pull off from the holding mechanism.



Now you can push the watch with closed bracelet over the watch holder. For better handling the watch holder can be compressed. In order to secure the watch, the watch holder will expand to the width of the wristband.

Replace the watch holder in the housing of the winder.

Please make sure that the watches are always set **at 12 o'clock position** when inserted. They will return to this position after each winding interval.

Integrated drawer with control element

Holding on the drawer with both hands left and right and pull it out



Left button:

Open the base door: Press and hold the button 3-4 seconds

Fingerprint reader:

Watch winder units open up

Right button:

Close the watch winder units:
Press and hold the button

Maintenance and care of the clock

The following care instructions will ensure that you enjoy your Troja 16 M II for many years. The high-quality movement should be protected from dust particles. We therefore recommend that you never leave the case open for long periods of time to prevent dust from settling in the movement. Please do not clean the case with "harsh" or abrasive cleaning products, but only with a damp, soft cloth that has been lightly moistened with a lukewarm mixture of water and neutral soap, if necessary.

After 10 years at the latest, you should take your pendulum clock to a competent watchmaker to have the movement cleaned and re-oiled. This should be a matter of course for a pendulum clock that keeps precious time accurate to the second, 24 hours a day, for years on end. Then it will serve you tirelessly for decades and be passed down from generation to generation as a valuable timepiece to be proud of.

The Software »SMART INTERFACE«

Starting the watch winder

The SMART INTERFACE is the user interface via which all functions of your watch winder can be controlled.

Before this can be used, the following settings must be made:

1. **Connect your WiFi-enable device (smartphone, tablet, PC etc.)**
with the watch winder by selecting the WiFi network (SSID),
e.g. »ES_Troja16.2_035«, in the WiFi settings of your device.

The network name is made up as follows:

ES_watch winder short name_serial number

Watch winder short names:

Troja 16 M II ES_TROJA _ (Serial number*)

Troja Lunarix M II ES_TROJA _ (Serial number*)

Troja Sonata M II ES_TROJA _ (Serial number*)

(*Serial number: see certificate)

It will take up to one minute to establish the connection.

2. **At the prompt, enter the required WiFi password**
Now you should be connected to the watch winder network

3. **Start your browser (Microsoft Edge, Mozilla, Safari, etc.)**
and enter the IP address of the watch winder.
It is as follows:192.168.2.1/index.php

4. **Open the search function of your browser**

The image of the start screen should appear according to your watch winder model.

This interface shows a clear overview of all functions. For ease of use, functions that are not required are only shown when necessary.

The following functions can be selected directly

1. **Database:** Enter the first three letters of the desired watch brand, e.g. ERW, the automatic sort function is started and all watches beginning with the relevant letters are listed.

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Database Erwin

ERWIN SATTLER Chronograph 66 == 800
ERWIN SATTLER Chronograph Classica Secunda == 800
ERWIN SATTLER Chronograph Bronze == 800
ERWIN SATTLER Chronograph Bronze II == 800
ERWIN SATTLER Chronograph II == 800
ERWIN SATTLER Chronograph II S == 800
ERWIN SATTLER Chronograph III S == 800
ERWIN SATTLER Classica Bronze Anthrazit == 960
ERWIN SATTLER Classica Bronze Blau == 960
ERWIN SATTLER Classica Lunaris == 800
ERWIN SATTLER Classica Medium == 960
ERWIN SATTLER Regulateur Classica Secunda == 800
ERWIN SATTLER Regulateur Griego Secunda == 800
ERWIN SATTLER Regulateur Nero Secunda == 800
ERWIN SATTLER Time Commander == 650
ERWIN SATTLER Time Commander == 650
ERWIN SATTLER Time Commander Bronze == 650
ERWIN SATTLER Time Commander Bronze II == 960
ERWIN SATTLER Time Commander Bronze III == 960
ERWIN SATTLER 50 Jahre ERWIN SATTLER == 800
ERWIN SATTLER Triage == 800

Motor 04 Motor 12
Motor 05 Motor 13
Motor 06 Motor 14
Motor 07 Motor 15
Motor 08 Motor 16

Motor 01: ALL Universal 1600 left or right
Motor 02: ALL Universal 1600 left or right
Motor 03: ALL Universal 1600 left or right

2. Edit Motor 01 – Edit Motor 16

the values selected from the database can be assigned to the relevant motor here.

Troja:

The 16 watch winders are divided into 2 panels, top left to bottom left and top right to bottom right.

e.g. top left = Motor 1

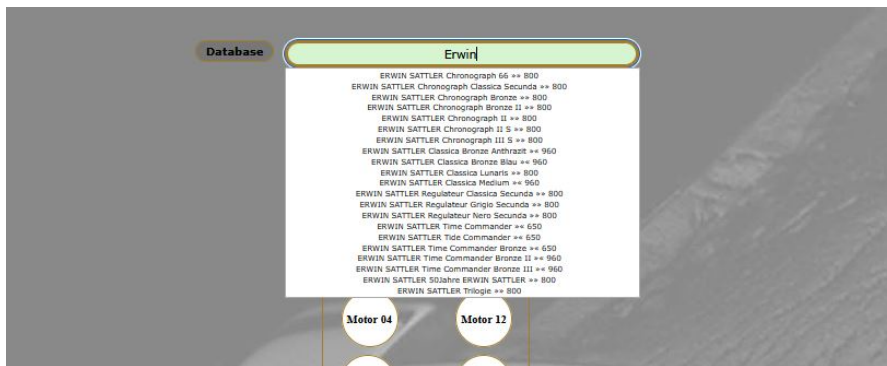
top right = Motor 9

3. **Motor 01 – Motor 16**, text and the direction of rotation (left, right, left or right, off) and tpd (turns per day) can be changed here manually.
4. **Light**, the light of the watch winder can be set to on, off and interval (the light switches on automatically when the winders are turning) here.
5. **Restart**, this button can be used to preset a desired start time for the watch winder, and the WIFI module can be switched off if active WiFi is no longer required after the data transfer.
Please note that data transfer is not possible with the WiFi module switched off. This can be reactivated after a brief interruption in voltage (disconnect and reconnect the power pack).
6. **Open**, the laterally extendable watch winders units of the Troja models can be opened via WIFI here.
7. **Data**: With this button, the settings are transferred to the watch winder and saved.
8. **Attention:**
If the settings are changed and the data transfer has not been completed, the data in the control unit may not be the same as is shown on the screen.

Setting the watch winder by using a practical example

Activate the »Database« field, the keyboard for your smartphone or tablet is shown automatically.

Enter the first three letters of the desired watch brand, e.g. ERW, the automatic sort function is started and all watches beginning with the relevant letters are listed.



Select the desired watch

The selected watch is copied into the »Database« field and can now be assigned to any motor by pressing the »Edit Motor 01« – »Edit Motor 16« button (in the example, Motor 01 is being edited). The data for the watch now includes a description, tpd (turns per day) and direction of rotation in the relevant field.

Repeat this process until all motors have been programmed.



Once all watches have been set, you can transfer the data to the watchwinders by pressing the »Save« button.



Manual – Fingerprint reader



Overview of all functions

Masterfinger enrollment	Define Masterfinger	Delivery condition → 6 x scan Masterfinger
Userfinger enrollment	Enrollment of new users in combination with an ID	M → E → ID → OK → scan userfinger → M
Open drawers		Scan userfinger
Delete userfinger	Distinct deletion via ID	M → D → ID → OK → M
Delete all fingers (Reset)	Reset to delivery condition	DA → Mastercode → OK

M = scan Masterfinger

Caution:

Every time you press any button on the remote control, the green LED of the fingerprint reader must light up (to check a correct connection)!



Before start-up

What does ID mean?

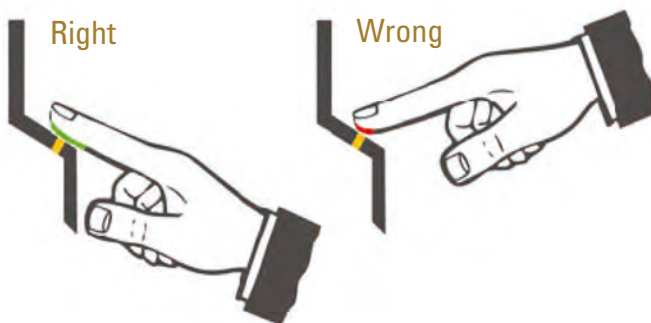
A unique ID must be assigned to each new fingerprint when it is enrolled. This has a maximum of 3 digits and is entered by pressing the corresponding digits on the keyboard.

Which finger should be used?

- Fingertips with many scars, injuries or an extremely poor structure are not suitable for user fingers«
- Fingers that are prone to be injured (e.g. while working manually) should not be used
- If the fingers are very strong, the forefinger or little finger can be a good choice
- For very slender fingers or children's fingers, the thumb is recommended.
- The fingertips of the left hand of left-handed persons are usually more nagged than those of the right hand of right-handed persons
- It is recommended to save 2 different fingers for each person to still have one available in case of an injury
- If only a few people use the device, it is advisable to enrol more fingers per person, as users often develop a preference for a particular finger for identification over time.

Please notice

- The blue LED indicates that the device is powered on (blue LED is on permanently)
- Some useful hints for getting better fingerprint when scanning the finger over the sensor:
Slide your finger with a constant speed and slight pressure over the sensor.
The area of the finger in contact with the line sensor should be as large as possible.
(refer to the figure below).



All functions in detail

1. Masterfinger enrollment

After switching on for the first time or restoring the delivery settings, a master finger must first be programmed 6 times (scan the same finger 6 times).

Delivery settings: red, green and blue LEDs light up continuously

Swipe your master finger over the sensor; the red and green LEDs will briefly go out and then light up again constantly.

Once the master finger has been successfully programmed 6 times, the green LED will flash briefly to confirm completion.

Once the master finger has been programmed, the device is ready for operation. User fingers can now be programmed. The blue LED lights up continuously.

If a finger was swiped over the sensor during the programming process and was not accepted as a master finger, the red and green LEDs will continue to light up. Simply repeat the master finger programming process.

Timeout: after 60 seconds: Do not allow more than 60 seconds to elapse between individual master finger programming processes, otherwise the programming must be repeated.

Alternative to the master finger:

Enter the mastercode on the remote control and press OK.

Mastercode: can be found on the back of the remote control.

2. Enrollment of userfingers associated with an ID

Please note: Master fingers cannot be programmed as user fingers!

- The user finger programming mode is activated by scanning the master finger; the red and green LEDs light up briefly.
- Press button »E« (Enrollment) on the remote control.
- Enter an ID between 1 and 150 using the remote control.
- Press the OK button to confirm.
- Register one or more user fingers (swipe them over the sensor several times).
- If the programming is successful, the green LED lights up; if the quality is insufficient, the red LED lights up.
- Before scanning your finger again, always wait until the green LED goes out. It is recommended that you scan each user finger 6–10 times to optimise the recognition rate.
- The programming process is completed by waiting approximately 7 seconds (until the red and green LEDs flash three times to confirm).
- Timeout 10 seconds: after opening the programming process with the master finger, do not allow more than 10 seconds to elapse, otherwise the programming must be repeated.

Example:

Scan master finger -> E -> 8 -> OK -> swipe your right index finger (user finger) across the sensor 6 times -> wait approx. 7 seconds

3. Watch winder units / Glass panels open

With the user finger:

Scan user finger

- if the finger is recognised, the green LED lights up and the relay is switched
- if the finger is not recognised, the red LED lights up

With the user code:

- Enter the user code into the remote control and press OK.

Configure the user code:

Master finger scan -> Button E -> User-Code (6-digit) -> OK -> User-Code (Repetition) -> OK

If master finger recognition is difficult:

- Enter mastercode -> OK (as an alternative to master finger)

4. Delete individual user fingers

- Scan master finger, red and green LEDs light up briefly
- Press button D (Delete) on the remote control (bottom left), green LED lights up briefly
- Enter the ID of the user finger to be deleted -> OK, green LED lights up briefly
- The delete process is completed by scanning the master finger again; the red and green LEDs light up briefly

5. Delete all fingers (incl. masterfinger)

Delete with the master finger

- Scan master finger three times.
- After the second scan, the red LED flashes to indicate that the deletion process will start with the next scan.
- After the third scan, the green LED flashes to indicate that the delete process is in progress.
- Once all data has been deleted, the fingerprint reader will be in its factory default state and the red, green and blue LEDs will be lit continuously.

Delete with the mastercode

Mastercode: see back of remote control

- Hold the infrared remote control directly in front of the blue LED:
Enter: DA -> Mastercode -> OK
The fingerprint reader will then return to its factory default state, the red, green and blue LEDs will remain lit.

If there is no master finger/mastercode,

the device can only be reset to default setting in the interior of the watch winder. This procedure should only be carried out by qualified personnel.

6. Setting the relay switching time

- Scan master finger
- Enter relay assignment: R1
- Enter digit(s) for the relay switching time in seconds (1 to 65 seconds)
- Confirm with the OK button

Example:

Scan master finger -> RT -> R1 -> 17 -> OK, the relay switching time for relay (R1) is changed to 17 seconds.

7. Adjusting the sensitivity of the fingerprint reader

Scan master finger -> Level input (between 1 and 5, where 1 is the lowest level) -> OK

Example:

Master finger -> 3 -> OK, the sensitivity is now set to level 3 out of 5.

8. Lock mode (lock/unlock the fingerprint reader)

Blocking:

If an unregistered finger is swiped over the sensor four times in succession, the red LED lights up and the finger sensor switches to lock mode. This prevents unauthorised persons from attempting to gain access undisturbed over a longer period of time.

The lock mode is initially limited in time; after a further 5 failed attempts, the lock time is extended (lock intervals: 1 minute, 5 minutes, 30 minutes, 1 hour, then permanent lock).

Unlocking:

Lock mode can be ended at any time by swiping a registered finger (master or user finger) once over the sensor.

9. Check ID

Checking whether an ID has already been assigned

Press the OK button -> enter the ID to be checked -> press the OK button

- If the ID has already been assigned, the red and green LEDs light up.
- If the ID has not yet been assigned, only the red LED lights up.

Safe: Assembly and operating instructions

for a free-standing safe from the »MÜNCHEN« series

Euro/VdS-Category I - German test institute for fire protection and security

Insurance cover for private use up to €65,000.00*

Insurance cover for commercial use up to €20,000.00*

By purchasing this safe, you have chosen a high-quality product which offers anti-burglary protection defined according to Euro/VdS category I.

Please take a moment of your time to read through these instructions carefully.

1. Security

According to Euro/VdS category I, guaranteed anti-burglary protection exists only when safes with a dead weight of less than 1000 kg are fixed to the floor properly in their place of installation. The safe is fixed to the floor by the two holes in the floor using size M12 heavy-duty plugs.

The diameters of the holes in the floor are designed in such a way that installation can be carried out according to the push-through method, i.e. the plug hole can be created and the plug can be installed directly through the holes in the floor.

For example, TOX knock-in anchors type E M 12x50, Upat USA M 12 knock-in anchors or an equivalent fixing element from another manufacturer are suitable for this purpose. Observe the installation instructions of the relevant plug manufacturer, as this is the only way to guarantee the minimum required extraction forces for these fixing elements.

* Please discuss all issues relating to insurance with your property insurer.

If it is not possible to fix the safe to the floor properly for technical reasons (underfloor heating, etc.), please speak to your property insurer in this case as well.

Please note: If the safe is not fixed to the floor or is fixed to the floor improperly, your property insurer is not liable for any material or property damage which may occur.

2. Operation

Your safe is equipped with an electronic code lock.

A double signal is emitted when a valid code is entered and a long beeping signal is emitted when an invalid code is entered. If you pause for more than 10 seconds between each press of a button, the code that you started to enter will be deleted.

3. Open and locking

Open:

Enter code (factory code = 1-2-3-4-5-6), unlock the door and open it. If not opened within 3 seconds, the lock secures automatically. If code entry failed on first attempt wait 20 seconds before re-entering. Three long beeps indicate the lock bolt is jammed. Release the handle and re-enter code.

Locking:

Close door and turn handle fully to closing position. The lock is secured. Control blocking status by trying to turn handle back.

Manipulation protection:

Entry of four consecutive invalid codes – keypad is blocked for 5 minutes. During this period, the light flashes every 10 seconds and any key press causes a long signal. After expiration, entry of two more in-valid codes , restarts the 5 minute blocking period.

Safety reference:

All codes are to be securely stored. If you lose your password, there is no emergency opening option. The safe can only be opened by destroying it. Do not use personal data (e.g. birthdays, telephone numbers, etc.) as a code. When putting the safe into operation, we recommend that you change the factory code!



4. Changing the mastercode

Caution: Only when the safe door is open!

Press and hold key »0« until double signal!

The light remains on during the following action:

- Enter old code (double signal)
- Enter new code (double signal)
- Enter the new code again (double signal)

Caution: If mistakes are made (long signal) the old code remains active.

5. Activate the second opening code

Caution: Only when the safe door is open!

Press and hold key »1« until double signal.

The light remains on during the following actions:

- Enter mastercode (double signal)
- Enter secondary code twice (double signal after each)
- Enter secondary code again (double signal)

The secondary code can be changed in the same way as the main code. The secondary code can be deleted using the main code, but not vice versa.

Caution: If mistakes are made (long signal) the old code remains active.

6. Delete the secondary code

Press and hold key »3« until double signal.

The light remains on during the following actions.

- Enter mastercode
- The secondary code is deleted.

7. What to do in case of

- **You hear a long beep after your combination last digit and the lock does not open?**
You entered an invalid code. Repeat the operation, making sure to enter the correct code.
- **LED flashes every 10 sec., and, when you push a button you hear a long beep?** You entered 4 times a wrong code and the lock is temporarily blocked. Wait 5 minutes and try again.
- **You do not hear any beep when you push a button?**
Replace the battery. If the problem is not solved, call your service centre.
- **You can open, but you hear a long sequence of beeps after your code last digit?**
Immediately replace the battery. Use only 9 V Alkaline or energizer batteries!



- **Battery empty with closed door:**

In case the battery is drained completely, uncover the power terminals in the front of the Entry Unit and power with fresh 9 V Alkaline battery. The battery compartment is located inside the safe. (see figure above)

Attention: Keep battery pressed against the terminals until lock is completely open.



Maintenance and care

- It is necessary to re-lubricate the door hinges depending on how frequently the safe is used. Spray the hinge with commercially available penetrating oil (e.g. »BALLISTOL«) and wipe away oil that is dripping off.
- The locking pins can be oiled easily when they are in their extended position.
- The interior and exterior can be cleaned using a moistened cloth.

Operational reliability and warranty

- The manufacturer does not assume any liability for damage to material or property resulting from the non-observance of maintenance guidelines, as well as improper handling and operation.
- **Keep the password in a safe place;** if you lose it, the only way you can access the contents is by opening the safe using force. We would like to explicitly point out that tampering with the safe even to the slightest degree voids any guarantee in terms of safety and function. This is especially true in the case of fires and break-in attempts.

Important note for qualified personnel carrying out maintenance and repair work on the lock and locking mechanism:

To remove and fit the fire-protection panel, bend the panel's bending limb only as far as necessary. If the bending resistance is noticeably reduced in this case, the fire-protection panel must be replaced.



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