Anleitung für Montage und Betrieb
Transpondertaster TTR 1000

Fitting and operating instructions
Transponder key switch TTR 1000

Notice de montage et d’utilisation
Transpondeur TTR 1000

Montage en gebruikshandleiding
Transponderschakelaar TTR 1000

Instrucciones de montaje y de servicio
Pulsador transmisor-receptor TTR 1000

Istruzioni per il montaggio e l’uso
Pulsante transponder TTR 1000

Instruções de montagem e manutenção
Leitor de chaves transponder TTR 1000

Instrukcja montażu i użytkowania
Sterownik transponderowy TTR 1000

Szerelési és működtetési útmutató
TTR 1000 transzponder

Návod k montáži a obsluze
Elektronický zámek TTR 1000
1 Transponder key switch TTR 1000

The transponder key switch TTR 1000 consists of a decoder, to which two readers can be connected (one reader is included in the supply package), and two transponder keys. Up to 1000 transponder keys can be registered with a decoder. The reader and decoder are connected via a simple 2-core cable (supplied ex-factory 5 m long) which can be shortened to 0.5 m or extended to 30 m. This connection carries a safe, low voltage only and is sabotage-proof, i.e. if this cable or the reader are tampered with, unintentional switching actions of the decoder will not result.

The readers can be installed at any desired location, however, if they are installed on metal a distance of at least 2-3 cm must be observed ➤
(for this item no. 438 488 may be required). It is only when two readers are connected that it becomes necessary to maintain a distance of at least 50 cm between them to ensure that there is no mutual interference. The decoder must always be installed in an access-protected area, because here the control cables, for example for a door operator or door lock, are connected and the registration/deregistration of transponder keys is possible.

Each transponder key contains an electronic chip which is precoded as a unique specimen from more than 4 billion possibilities and is provided with an identification signal. 1000 memory locations are reserved in the decoder for this very purpose, i.e. you can register a maximum of 1000 transponder keys in the decoder, which following registration allow the output relay there to pick up for a set impulse duration (0.5 ... 90 seconds). The advantage of transponder keys over conventional keys lies in the fact that besides only needing to be held approx. 2 cm in front of the reader to initiate opening, in the event of loss or similar circumstances only the transponder key in question must be deregistered in the decoder, without the remaining keys or lock being affected.

In the ex-factory state the memory locations for the transponder keys are free/deleted. The registration or deregistration of transponder keys as well as changes to the settings remain stored even in the event of a power failure.

Maximum contact load of the output relay (potential-free change-over contact):

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Contact Type</th>
<th>max. contact load:</th>
</tr>
</thead>
<tbody>
<tr>
<td>.6</td>
<td>n.c. contact</td>
<td>2,5 A / 30 V DC</td>
</tr>
<tr>
<td>.8</td>
<td>n.o. contact</td>
<td>500 W / 250 V AC</td>
</tr>
<tr>
<td>.5</td>
<td>common contact</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Power input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
</tr>
<tr>
<td>Stand-by</td>
</tr>
<tr>
<td>1 reader</td>
</tr>
<tr>
<td>2 reader</td>
</tr>
</tbody>
</table>

Stand-by max. 5,9 W
Power supply: 230/240 V AC (50-60 Hz)
To minimize sensitivity to malfunctions, the earth/ground (PE) should also be connected.

2 Operating instructions TTR 1000
Located in the decoder is an input module, fastened to the motherboard, incorporating two 7-segment displays and three buttons („-“, „+“ and „P“), via which transponder keys can be registered and deregistered, the impulse duration of the output relay can be set or the entire unit reset to the ex-factory state.
After connecting the power supply and a reader (polarity does not need to be observed here), the unit is ready for operation. This and connecting the output relay is shown in the figures enclosed.

Note
One or two readers can be connected, however, only one per connection at any one time.

2.1 Normal operation
When the input module is in the home position (display „- - -“, only the two central segments glow permanently), this indicates that the transponder key switch is in the normal operation mode.
Each time a registered transponder key is held approx. 2 cm in front of the reader, the output relay picks up for the set impulse duration and the LED in the reader (only at the primary terminal) briefly lights up. If a non-registered transponder key with the correct identification signal is recognized, the LED in the reader flickers (only at the primary terminal); with other identification signals there is no reaction.

2.2 Using the transponder key
Reserved in the decoder are 1000 memory locations (numbered 000 through 999), at each of which a transponder key can be registered.
With the help of the two 7-segment displays and the three buttons it is possible to check whether a transponder key is assigned to a particular memory location or not (the location would then be either free or deleted). In as far as the location is free or deleted, a transponder key can then be registered there. If it is occupied, it can then be deleted with or without the corresponding transponder key, after which the memory location in question becomes available again for re-assignment. Furthermore, the memory location of a registered transponder key can be identified with this.

**Note**

It is **absolutely essential** to note for which person and under which memory location a particular transponder key was registered to ensure that in the event that the transponder key gets lost or access for this person is no longer desirable, the respective memory location can be deleted even without the transponder key. A corresponding list has been prepared for you in the appendix.

For all these actions there is a **memory location menu**, which you can access from the home position (display „- - -“) as follows:

- **Press button „P”** for approx. 1 second ➔ the number of the first free memory location appears flashing in the 7-segment displays. If memory location 0 is not yet occupied, this would be shown as „000”. If none of the memory locations are free, „999” glows permanently.
- **Using the „+” or „-” buttons**, you can now page through from one memory location to the next (press „+” to increase the number, after „999” the system returns to „000” etc.; press „-” to decrease the number, after „000” the system returns to „999” etc. If the button in question is pressed for longer, you then increase or decrease in increments of 5.
- **If the memory location in question is free**, the display flashes; however, if it is occupied the memory location number is shown as a static
display. In this way you can check which memory location is free and which is occupied.

- In the memory location menu the LED in the reader lights up briefly (only at the primary terminal) whenever a registered transponder key is recognized; however the relay does not pick up. If a non-registered transponder key with the correct identification signal is recognised, the LED in the reader flickers (only at the primary terminal), with other identification signals there is no reaction.

- It is possible to quit the memory location menu at any time and return to the normal operation mode by pressing the „P“ button for approx. one second.

- You are also automatically returned to the normal operation mode if you are in the memory location menu and between pressing buttons or between the transponder signals more than 90 seconds elapses.

Note
If a large number of transponder keys are to be registered or deregistered, then it is advisable to connect a second reader near the decoder – you can then save yourself a great deal of running about, depending on where the first reader is installed.

2.2.1 Assigning a transponder key to the next free memory location

- Change, if necessary, to the memory location menu (see 2.2).
- Using the „+“ or „-“ buttons (see 2.2) (only necessary if you wish to register up to or from a particular memory location number), alter the pre-setting of the next free memory location.

Note
It is only possible to register a (as yet) non-registered transponder key if the selected memory location is free or deleted, i.e. the corresponding display must flash!
• Hold the transponder key to be registered approx. 2 seconds in front of the reader ➔ the LED in the reader (only at the primary terminal) lights up briefly.
• In as far as the transponder key to be registered has **not** been assigned to any other memory location in the decoder, the number of the memory location, under which the transponder key has just been registered, appears as a static display.
• Enter the name of the person, for which the transponder key has been registered, in the list under the memory location number shown as a static display.
• Proceed to register any other not yet registered transponder keys, as required.
• If no further actions are to be carried out in the memory location menu (see 2.2), return to the home position by pressing button „P“ for approx. one second.

2.2.2 **Identifying and/or deregistering an available transponder key**
• Change, if necessary, to the memory location menu (see 2.2).
• Hold the transponder key to be identified and/or deregistered approx. 2 cm in front of the reader for one to two seconds ➔ the LED in the reader (only at the primary terminal) lights up briefly.
• In as far as the transponder key to be identified and/or deregistered is registered in the decoder, the number of the memory location now appears as a static display, under which the available transponder key is stored.
• The identification process is now completed. If no deregistration is to take place or no further actions are to be carried out in the memory location menu (see 2.2), you can return to the home position by pressing button „P“ for approx. one second.
If, however, the memory location of the transponder key just identified is to be deleted, now press the „+“ and „-“ buttons simultaneously for at least one second ➔ afterwards the memory location number appears flashing because the memory location in question is now free or has been deleted.

- Amend the list of the persons and the memory location numbers accordingly.
- Proceed to deregister any further registered transponder keys as required.
- If no further actions are to be carried out in the memory location menu (see 2.2), return to the home position by pressing button „P“ for approx. one second.

2.2.3 Cancelling a non-available transponder key

- Change, if necessary, to the memory location menu (see 2.2).
- Using the „+“ or „-“ buttons (see 2.2), select the memory location number (shown as a static display) of the memory location that you wish to delete.
- Now press the „+“ and „-“ buttons simultaneously for at least one second ➔ the memory location number then appears as a flashing display, because the memory location in question is now free or has been deleted.
- Amend the list of persons and the memory location numbers accordingly.
- Proceed to deregister any further registered transponder keys as required.
- If no further actions are to be carried out in the memory location menu (see 2.2), return to the home position by pressing button „P“ for approx. one second.
### 2.3 Summary of the memory location menu

<table>
<thead>
<tr>
<th>Display of any memory location number</th>
<th>Transponder key in front of the reader</th>
<th>Action that is possible or is taking place</th>
</tr>
</thead>
<tbody>
<tr>
<td>flashing = free</td>
<td>not registered</td>
<td>Registration, then static display of the corresponding memory location number</td>
</tr>
<tr>
<td>flashing = free</td>
<td>registered</td>
<td>Identification, then static display of the corresponding memory location number</td>
</tr>
<tr>
<td>static = occupied</td>
<td>registered</td>
<td>Identification, then static display of the corresponding memory location number</td>
</tr>
<tr>
<td>static = occupied</td>
<td>without or not registered</td>
<td>Memory location can be deleted, then flashing display of the corresponding number</td>
</tr>
</tbody>
</table>

### 2.4 Setting the impulse duration

From the home position (display: „- - -“), you can set the impulse duration as follows:

- Press the „+“ button for approx. one second ➔ on the left of the 7-segment display a small „d“ appears and on the right a number between 0 and 9, representing the set impulse duration.
- Using the „+“ or „-“ button set the desired impulse duration („+“ increases the number, after the „9“ the „0“ appears again etc.; „-“ decreases the number, after the „0“ the „9“ appears again etc.).
<table>
<thead>
<tr>
<th>Display</th>
<th>Impulse duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>d 0</td>
<td>0.5 sec. (ex factory state)</td>
</tr>
<tr>
<td>d 1</td>
<td>1 sec.</td>
</tr>
<tr>
<td>d 2</td>
<td>2 sec.</td>
</tr>
<tr>
<td>d 3</td>
<td>5 sec.</td>
</tr>
<tr>
<td>d 4</td>
<td>10 sec.</td>
</tr>
<tr>
<td>d 5</td>
<td>20 sec.</td>
</tr>
<tr>
<td>d 6</td>
<td>30 sec.</td>
</tr>
<tr>
<td>d 7</td>
<td>45 sec.</td>
</tr>
<tr>
<td>d 8</td>
<td>60 sec.</td>
</tr>
<tr>
<td>d 9</td>
<td>90 sec.</td>
</tr>
</tbody>
</table>

• Press button „P“ for approx. one second ➔ the displayed impulse duration is stored and you are returned to the home position. You are automatically returned to the normal operation mode if a period of more than 90 seconds elapses between buttons being pressed, in which case any possible change to the impulse duration is not stored.

2.5 Restoring the ex-factory settings
From the home position (display: „- - -“), you can restore the ex-factory settings (all memory locations are free or deleted and the impulse duration = 0.5 seconds) as follows:

• Press the „+“ and „-“ buttons simultaneously for at least one second ➔ „CA“ (clear all) flashes up in the display to query whether everything should indeed be restored/reset.
• If everything is indeed to be restored, you now press the „+“ and „-“ buttons simultaneously for at least one second, after which „CA“ appears as a static display to indicate that everything has in fact been restored.
• By pressing any button, you are returned to the normal operation mode.
• If you do not wish to restore the ex-factory settings, instead of pressing the „+“ and „-“ buttons twice, press any one button ➔ you then return to the home position without anything having been restored. You also return to the home position without restoring, if a period of more than 90 seconds elapses between buttons being pressed.

3 List of the memory location numbers, names and remarks
(page 116-118)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4 EU Manufacturer’s Declaration

Manufacturer: Verkaufsgesellschaft KG
Upheider Weg 94-98
D-33803 Steinhagen

Product: Transponder key switch
Unit type: TTR 1000

On the basis of its conception and design as well as in the type marketed by us, the product described above complies with the relevant basic safety and health requirements of the Directives stated below. Any modification made to the product without our express permission and approval shall render this declaration null and void.
Relevant Directives that the product complies with:
EC Directives regarding Electromagnetic Compatibility
EN 61000-6-3 08/2002
EN 61000-6-1 08/2002
EC Low-Voltage Directive 98/37/EC

Steinhagen, 8th January 2001

Axel Becker
Management