Instruction manual FPC 902
record – automatic door systems
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Presentation of warning signs

Various symbols are used in this guide for easier understanding:

**NOTICE**
Useful advice and information to ensure correct and efficient workflow of the system.

**IMPORTANT**
Specific details which are essential for trouble-free operation of the system.

**IMPORTANT**
Important details which must be read for proper function of the system.

**CAUTION**
Against a potential hazardous situation that can lead to minor personal injury and property damage.

**WARNING**
Against a latent hazardous situation that can lead to severe injuries or death and cause substantial property damage.

**DANGER**
Against an imminent hazardous situation that can lead to severe injury or death.

**DANGER**
Against an imminent or latent hazardous situation that could lead to electric shock and cause serious injury or death.
2 General

The FPC 902 is primarily a tool for programming and configuring of agtatec automatic entrance and door systems.

In the ON-LINE- or OFF-LINE mode parameters and configurations can be adapted, parameter sets can be downloaded from the drive and copied onto other drives or replaced control units (upload). Parameters may be edited irrespective of the control unit.

Control units can be also protected from access by other service and maintenance organisations.

Another feature is the possibility for the software of the control unit to be updated with Flash-Technology.

The connection with the control units always takes place via the CAN bus.
3 Technical data

Supply voltage: 24 VDC / CAN bus
Battery: 9 VDC NiMH
Connected load: < 2.5 W
Max. fuse protection if separately supplied: 0.5 A
Temperature range: -20...+50 °C
Display: 4 x 20 characters
Background light only by: 24 VDC / CAN bus
Wire length: 3 m

3.1 Identification

1. Shock resistant housing
2. LCD Display
3. Keypad
4. ON/OFF-switch (auto-OFF after 3 min.)
5. Card reader for MMC/SD memory cards
6. Connecting cable CAN bus
7. Contrast adjustment LCD Display
8. Input jack for external power supply
Model info

Display
9  Menu lines (> link to submenu)
10  Status report (service lock, connection)
11  Title of main menu
12  Indicator for charge state
13  Licence down counter
14  Navigation aid in the menu

Option
15  Wall power supply 24 VDC (optional)

3.2 Key functions

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<tr>
<td>▲</td>
<td>Move up to select menu item</td>
</tr>
<tr>
<td>▼</td>
<td>Move down to select menu item</td>
</tr>
<tr>
<td>►</td>
<td>Cursor key right to increase the value (+)</td>
</tr>
<tr>
<td>◄</td>
<td>Cursor key left to decrease the value (-)</td>
</tr>
<tr>
<td>OK</td>
<td>After selecting menu item, confirm entry</td>
</tr>
<tr>
<td>Enter</td>
<td></td>
</tr>
<tr>
<td><strong>ESC</strong></td>
<td>Leave menu item, escape</td>
</tr>
<tr>
<td><strong>Page Up</strong></td>
<td>Move page up to select menu item</td>
</tr>
<tr>
<td><strong>Page Down</strong></td>
<td>Move page down to select menu item</td>
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<tr>
<td><strong>Status</strong></td>
<td>Direct key to read out the status of the STG</td>
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<tr>
<td><strong>Function</strong></td>
<td>Direct key to execute functions</td>
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<tr>
<td><strong>SSK</strong></td>
<td>Direct key to release SSK (key-operated contact)</td>
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<td><strong>Reset</strong></td>
<td>Reboot the STG</td>
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<tr>
<td><strong>Upload</strong></td>
<td>Direct key to activate/deactivate service lock</td>
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<tr>
<td><strong>Download</strong></td>
<td>Send program and configuration to the STG</td>
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<td><strong>1</strong></td>
<td>Read out program and configuration from the STG</td>
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<td><strong>F1 Help</strong></td>
<td>Numerical entry 0-9 of the key code to renew the license</td>
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<td><strong>F2 Service</strong></td>
<td>Select help menus</td>
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<td><strong>F3 Flash</strong></td>
<td>Select service programmer</td>
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<tr>
<td><strong>F4</strong></td>
<td>Select Flash programmer</td>
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<td><strong>F5 Setup</strong></td>
<td>Without function</td>
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<td></td>
<td>Setup</td>
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4 Set-up

4.1 Important notes

Automatic recognition of software and correct indication

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<th>from version</th>
<th>New menu structure</th>
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<td>2.24</td>
<td></td>
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<tr>
<td>16 STA Redundant</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>17 STA</td>
<td>2.23</td>
<td></td>
</tr>
<tr>
<td>17-2 STA</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>18 STA</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>19 STA</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>DFA 125 G</td>
<td>1.32</td>
<td></td>
</tr>
<tr>
<td>DFA 127</td>
<td>1.0</td>
<td>1.0</td>
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**NOTICE**

If the software is not automatically recognized, it must be selected manually.

Read off the software version on the EEPROM and select it in the list of the FPC 902.

**ONLINE-mode**

All modifications in the parameter and configuration will be transmitted and stored directly in the STG.

**OFFLINE-mode**

If no connection to the STG exists or if the OFFLINE-mode is selected with an existing connection.

Modifications in the programming and configuration become operative after upload to the STG only.
4.2 Set-up

Battery operation:
Press this button to switch ON or OFF.

**NOTICE**
To protect the battery when non-use, please switch off (auto-OFF after 3 min.)

Background light inactive during battery operation.

**IMPORTANT**
Replacement of the battery:
8.4V 250mAh / NiMH (HR22, 6AM6)
USE APPROVED BATTERY TYPE ONLY!

Power supply from CAN-bus:
Plug in connecting cable on the CAN-port on the STG.

External power supply for stand-alone operation:
Plug in wall power supply **24VDC** on plug socket (8) (available as option).

**NOTICE**
This charges the battery. The background light active only with external 24VDC aktiv!

CAN-Bus – STG

**NOTICE**
Use of a new battery after exchange:
Charge time is approx. 24 h with external power supply of 24VDC.

**NOTICE**
Dispose of used batteries in accordance with environmental regulations!
4.3 Select language

Switch on the FPC 902

Select menu Setup

On menu item SETUP to menu item Select language

Select the desired language on menu item SPRACHE / LANGUAGE / LANGUE

Return to menu FPC 902

4.4 Activate license counter

Switch on the FPC 902

Select menu Setup

On menu item SETUP select menu item Renew licence

NOTICE

Read out the ID-no., write down and forward to an authority.

Phone:_______________________

Select KEY and enter the keycode you have got from the authority

(⇒ numbers on the keys)

Confirm entry

Return to menu FPC 902
4.5 Connection to control unit

Connect with the control unit

On menu FPC 902 to menu item Service STG and confirm

Connect with STG …

Accept all parameter from the STG? Select Yes and confirm

Parameter download from STG…

4.6 Programming parameters (new menu structure)

Select the service programmer

On menu SERVICE STG select menu item Parameter and confirm

Select menu item Programming

On menu item PROGRAMMING select Closing speed (for example)

Select menu item Closing speed

Program the closing speed. The maximum value is equivalent to the number 40 (equal BDE-E)

Confirm entry

(2x) Return to menu SERVICE STG
4.7 Programming parameters (previous menu structure)

Select the service programmer

On menu SERVICE STG select menu item Parameter and confirm

Select menu item Programming

On menu item PROGRAMMING select Closing speed (for example)

Select menu item Closing speed

Program the closing speed. The maximum value is equivalent to the number 40 (equal BDE-E)

Confirm entry

(2x) Return to menu SERVICE STG
4.8 Configuring parameters (previous menu structure)

Select the service programmer

On menu SERVICE STG select menu item Parameter and confirm

Select menu item Configuring and confirm

On menu item CONFIGURING select SOEK/NSK (for example)

Select menu item SOEK/NSK

Select one of the possible functions

Confirm entry

(2x) Return to menu SERVICE STG

4.9 Proceed functions

Connect with the control unit

On menu SERVICE STG select menu item Functions and confirm

On menu item FUNCTIONS select Release AKI (for example)

Proceed to function Release AKI

Function is executed …

Return to menu SERVICE STG
4.10  **Select mode of operation**

Connect with the control unit

On menu **SERVICE STG** select menu item **Operation mode** and confirm

Settings are read out …

If necessary select other mode of operation

Confirm entry

Return to menu **SERVICE STG**

4.11  **Menu maintenance**

Parameters in this menu allow the editing of messages, which remind that maintenance on the door system is due.

With the specification of time intervals, relying on the target values for the number of cycles (1 cycle = 1x opening + closing) and the activity weeks, a message will appear on the screen of the control unit BDE-D.

The messages differ from one another according to the share of actual value in the target value.

Actual value 95%: **98 Maintenance is due**

Actual value 100%: **98 Maintenance is due**

Actual value 105%: **97 Maintenance time exceeded**

All messages on the BDE-D can be reset. However, **97 Maintenance time exceeded** will be displayed again every 13 days.
Connect with the control unit

On menu *Setup Maintenance* often used target values for cycles and weeks, as well as for instance the telephone number of the next service-point, can be saved. With the function Save on STG the values are transmitted to the control unit and saved.

On menu SERVICE STG select menu item *Maintenance* and confirm

On menu MAINTENANCE select menu item *Setup maintenance* and confirm

On menu item SETUP MAINTENANCE select Cycles (for example) and confirm

Enter the target value of cycles (⇒ numbers on the keys)

Confirm entry
4.11.1 Enter the phone number

*Maintenance/Phone.* Implements the ability to enter the phone number of the nearest service-point.

**NOTICE**

If the telephone number of the nearest service-point is required to be shown on the error display, this information can be saved in the control unit, even if no target values for cycles or operating weeks are entered.

On menu item **SETUP MAINTENANCE** select menu item **Phone** (for example)

Enter the phone number of the next service-point

(→ numbers on the keys)

Confirm entry

Return to menu **SETUP MAINTENANCE**

4.11.2 Save parameters

For repeated use the preset parameters of both target values (cycles and weeks) and the telephone number can be saved.

On menu **SETUP MAINTENANCE** to menu item **Save in the STG** and confirm

Confirm to save in the STG
### 4.11.3 Reset actual values

With this function the actual values for cycles and weeks can be reset for instance after the completion of a maintenance work.

On menu MAINTENANCE to menu item Reset maintenance and confirm

Confirm to reset maintenance

![Maintenance Menu](image)

### 4.11.4 Individual actual values

The actual values for cycles and weeks can be if necessary individually adapted. This would be suitable when it exists deviation from the preset parameters (Setup maintenance).

**NOTICE**

If this is still possible, we recommend when exchanging a control unit the transfer of the actual values from the replaced unit.

On menu MAINTENANCE select line Cycles1000 ACTUAL or Weeks ACTUAL and confirm

Enter the actual value of cycles (→ numbers on the keys)

Confirm entry

![Actual Values](image)
4.12 Service lock

Connect with the control unit

On menu SERVICE STG select menu item Service lock and confirm

Settings are read out …

Menu items:
- Not locked
- Technical level locked
- Technical and user level locked

Confirm entry

Return to menu SERVICE STG

Direct key on menu SERVICE STG to activate/deactivate service lock
4.13 Deactivate service lock

Connect with control unit

**NOTICE**

With a protected unit one have direct access to blocked installations without previous unblocking!

On menu SERVICE STG select menu item Service lock and confirm

Select menu item Not locked and confirm

Return to menu SERVICE STG

Direct key on menu SERVICE STG to deactivate service lock
4.14 Select version of STG

4.14.1 OFFLINE-mode

OFF-LINE-mode; WITHOUT connection to STG

Switch on the FPC 902

OK

On menu FPC 902 to menu item Service STG and confirm

Connect with STG ...

No connection to STG. Continue offline? Select Yes and confirm

If necessary, select other software

Confirm the entry. Settings are stored ...

Confirm to initialize the FPC 902 with factory settings

Settings are stored ...

4.14.2 ONLINE-mode

ONLINE-mode; WITH connection to STG

1. Select version (read off the software version on the EEPROM), confirm the entry

2. Settings are stored ...

3. Accept all parameter from the STG? [Yes]

4. Parameter download from STG ...

5. Continue [OK]
4.15 Diagnostics on the drive

Connect with the control unit

On menu SERVICE STG to menu item Diagnostics and confirm

Cycle counter is read out

Return to menu SERVICE STG

OR...

If necessary, select other menu

Confirm entry

Diagnostic values are read out

Return to menu SERVICE STG
5  Software-/License-Update

5.1  Renewing the license

The service on record control units is for reasons of safety limited to 500 access operations.
Every access to the CAN bus longer than 5 seconds triggers a down counter one step.

Reload the down counter early

The CD-ROM with the required software and the fitting dongle are in the possession of authorities.
Please contact one of them as necessary.

Switch on the FPC 902 and note the displayed number top right in the start-display → the current amount

Select menu Setup

On menu item SETUP select menu item Renew licence

NOTICE

Read out the ID-no., write down and forward to an authority.
Select KEY and enter the keycode you have got from the authority (→ numbers on the keys)
Confirm entry

Return to menu FPC 902
5.2 Upload / Download

Connect with the control unit

On menu FPC 902 to menu item Service STG and confirm

Send program and configuration to STG

Confirm to send parameters to STG

**IMPORTANT**

ATTENTION! All values will be overwritten irrevocably.

Confirm entry

Read out program and configuration from STG

Confirm to overwrite parameters in the FPC 902

Confirm entry

Return to menu FPC 902

5.3 Software update for FPC 902

For software updates for the FPC 902, a special data file (*.HEX) is required. The updates will get published if necessary.

**Update procedure:**

A widely available standard memory card (MultiMediaCard MMC or Secure Digital SD) is used for the storage of software updates.

1. If a new memory card is used, this must be first formatted. To do that, the file manager of the PC operating system can be used. If different formats are available, choose categorical FAT.
2. Copy the HEX-file with compatible drive from PC to memory card.
3. Separate the FPC 902 from CAN bus and switch off.
4. Insert the memory card

**IMPORTANT**

Please be sure that the memory card is in the card reader (5) before the Service- and Flash-Programmer is selected!

5. Switch on the FPC 902 and monitor the installation process (duration ~ 1 Min.)
The modern Flash technology with microprocessors now permits direct overwriting of the program memory using an external Flash programmer, without requiring any changes to the hardware.

A widely available standard memory card (MultiMediaCard MMC) is used for the storage of the software updates.

**IMPORTANT**

Please be sure that the memory card is in the card reader (5) before the Flash Programmer is selected!

Select the Flash programmer
AUTOMATIC UPDATE

In normal cases an update should be executed in this way. The most up-to-date software version is suggested for all devices found on the CAN bus.

On menu item Flash-Programmer to menu item Automatic update

CAN nodes are searched …

Select the suggestion for the found device, then accept or reject.

After the acceptance the programming procedure is started. Afterwards on the CAN bus are CAN nodes searched again and the updating is indicated.

Restart CAN node, please wait …

MANUAL UPDATE

This is the user-defined variant. After devices on the CAN bus were found, all available software versions are indicated.

On menu item Flash-Programmer to menu item Manual update

CAN nodes are searched …

Select a definite software version from the suggestions.

After the acceptance the programming procedure is started. Afterwards on the CAN bus are CAN nodes searched again and the updating is indicated.

Restart CAN node, please wait …
## Error elimination

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<th>Possible causes</th>
<th>Remedy</th>
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<td>Battery fail while set up</td>
<td>Low battery</td>
<td>Charge battery approx. 24 h with external power supply of 24 VDC or STG</td>
</tr>
<tr>
<td>No display after connection to the STG</td>
<td>Wrong cable connector, incorrect plug socket</td>
<td>Check connections to the CAN bus</td>
</tr>
<tr>
<td>Flash-Programmer: File cannot be opened</td>
<td>Memory card not inserted or wrong type</td>
<td>Insert memory card (MMC)</td>
</tr>
<tr>
<td>Flash-Programmer: File cannot be opened</td>
<td>The file is not readable</td>
<td>In menu Flash-Programmer: Check files</td>
</tr>
<tr>
<td>Failure 252: No programming voltage on CAN node</td>
<td>Update of Flash-EEPROM is impossible</td>
<td>Replace STG</td>
</tr>
<tr>
<td>Failure 254: CAN node not found</td>
<td>Control unit without Flash-EEPROM; (e.g. STG 16)</td>
<td>Flash not allowed, change EEPROM</td>
</tr>
<tr>
<td>Failure: STG unknown</td>
<td>Software version of STG is newer than firmware of FPC</td>
<td>Update firmware of FPC to the current version</td>
</tr>
</tbody>
</table>
Contact

➔ **record UK limited**
Head Office: Garrison Business Park, Smith Avenue – Wishaw, ML2 0RY – UK
Central Office: Batley Business Centre – Unit 40, Annexe 2, Technology Drive – Batley WF17 6ER – UK
Southern Office: 17 Invincible Road – Farnborough, GU14 7QU – UK
tel.: +44 1698 376411 – fax: +44 1698 376422 – info@recorduk.co.uk – www.recorduk.co.uk

➔ **ROW**
record international – Allmendstrasse 24 – 8320 Fehraltorf – Switzerland
tel.: +41 44 954 91 91 – e-mail: international@agtatec.com – www.agtatec.com

➔ **Manufacturer**
agtatec ltd – Allmendstrasse 24 – 8320 Fehraltorf – Switzerland
tel. +41 44 954 91 91 – e-mail: info@agtatec.com – www.agtatec.com