

MANUAL

DIGITAL PROGRAMME SWITCH



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Buttons

The door can be operated quickly with the 3 buttons on Top (1, 2, 3) to perform the core essential features of an automated door. This can be achieved by interpreting the button description from Button-description layer 1

If you want to perform a specific feature you can navigate through the menu using the 4 bottom buttons and chose the desired action.

During parametrization of the door the button functionality changes as soon as you enter the password or a desired parameter. As soon as you have to make a numeric input to the controller you can operate the Digital Key Switch from the Button-description Layer 2.

Button-description layer 1

1. Quick setting which sets the door in Automatic Mode
2. Quick setting which sets the door in Lock Mode
3. Scroll through all possible Door Modes
4. Scroll Up/Increase Counter
5. Scroll Down/Decrease Counter
6. Confirmation
7. ESC/Cancel/Exit
8. Menu

Button-description layer 2

1. Move Cursor left
2. Move Cursor right
3. Confirmation
4. Number 0-1
5. Number 2-3
6. Number 4-5
7. Number 6-7
8. Number 8-9

Door Functions

- Automatic
- Lock
- One Way
- Partially Open
- Fully Open

Accessing Menu

If the Safety feature is enabled. Press a button to activate the Digital Key Switch, afterwards put in the password by using Button-description Layer 2.

In case the of a wrong input re-enter the password.

Turn Off Scenarios

Under these circumstances the Digital Key Turns off:

- After 5 seconds of a function change, no key has been pressed.
- After entering the password and no input has been made after 30 seconds

The password has to be re-entered to access the Digital Key Menu.

Notice: The password is a number of four digits with 0000 as a default value. There is a menu within the Change Password Settings, at which you can change the access password for the Digital Key Switch.

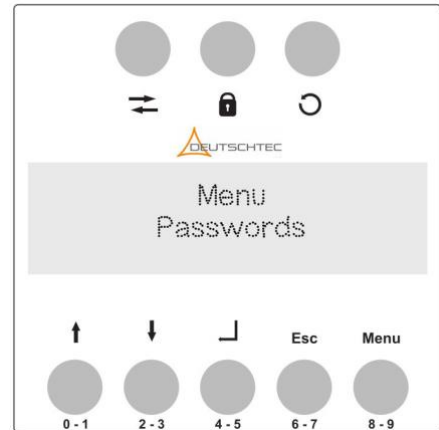
Main Menu Options

In this paragraph are the main segments of the main menu are described:

- Password

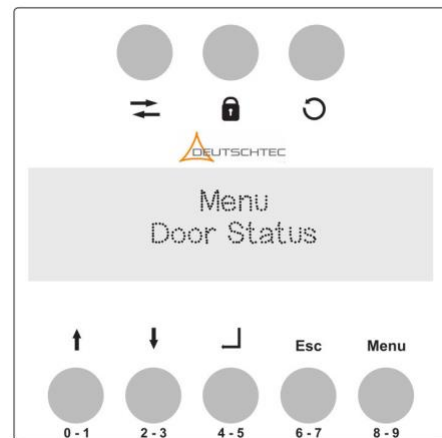
In this section you can setup a user password. In an underlying segment you can setup a password to lock down accessibility of the menu and also remove that barrier. Moreover you can simply change the user password of the menu. Furthermore you can change passwords for the Installer- and the Advanced User password. The default passwords:

- User: 0000
- Installer: 0049



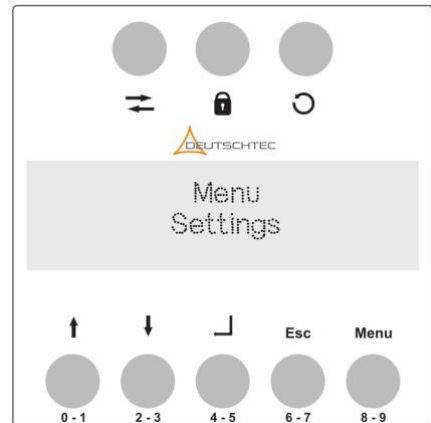
- Door Status

This section of the menu contains the door functions which can be performed by the system. Those function can also be accessed within the upper buttons 1 - 3 of the switch described in the Button-description section above.



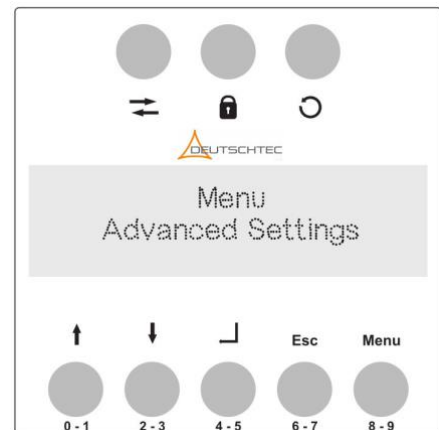
- Settings

In this segment you can adjust normal parameters, of the door which are accessible to the User and the Installer.

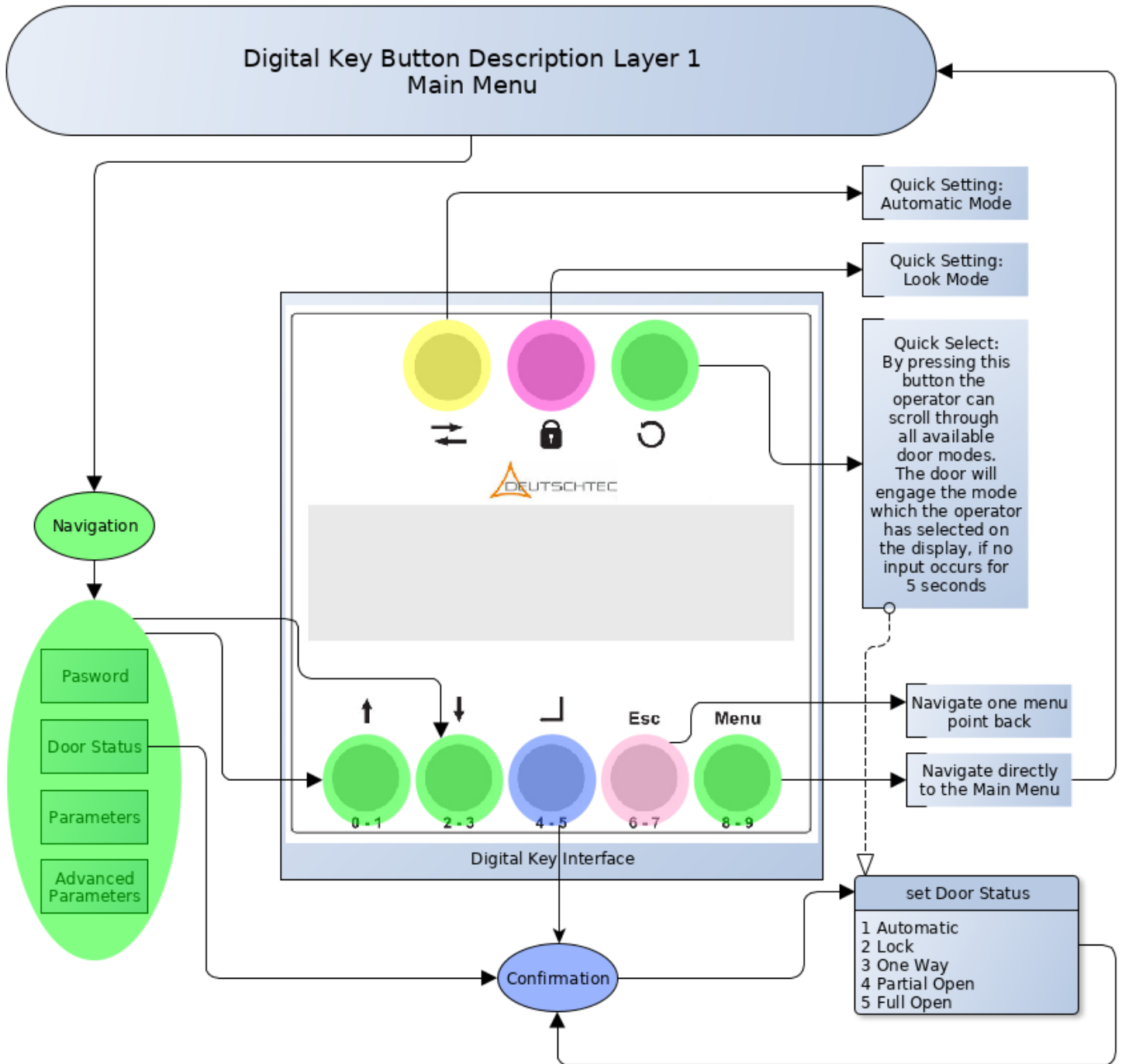


- Advanced Settings

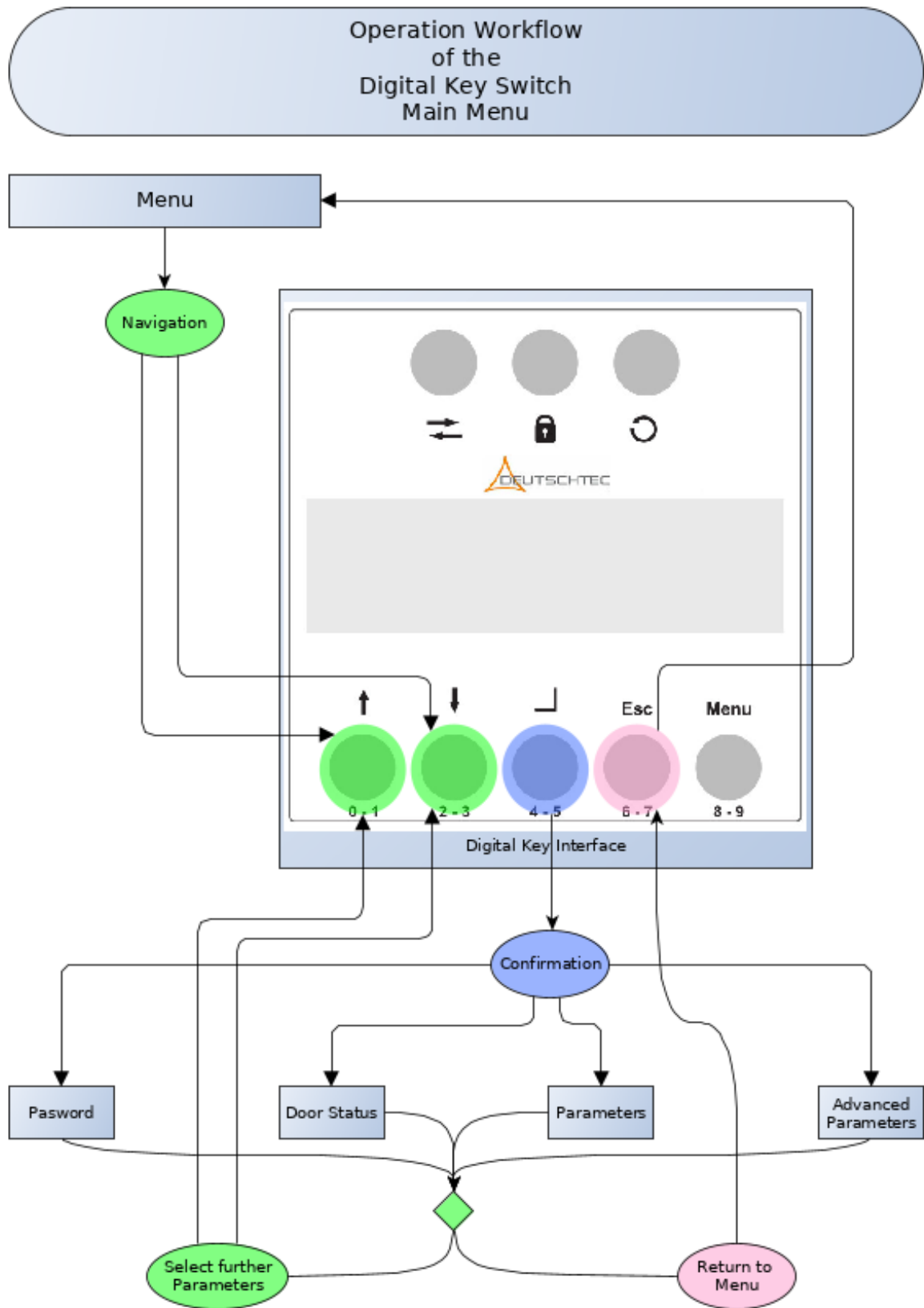
This sector is not accessible to the User and Installer. Most features of this paragraph are not suited for the average door and are used on very unique configurations or unusual circumstances. The advanced password can be enquired from the manufacturer.



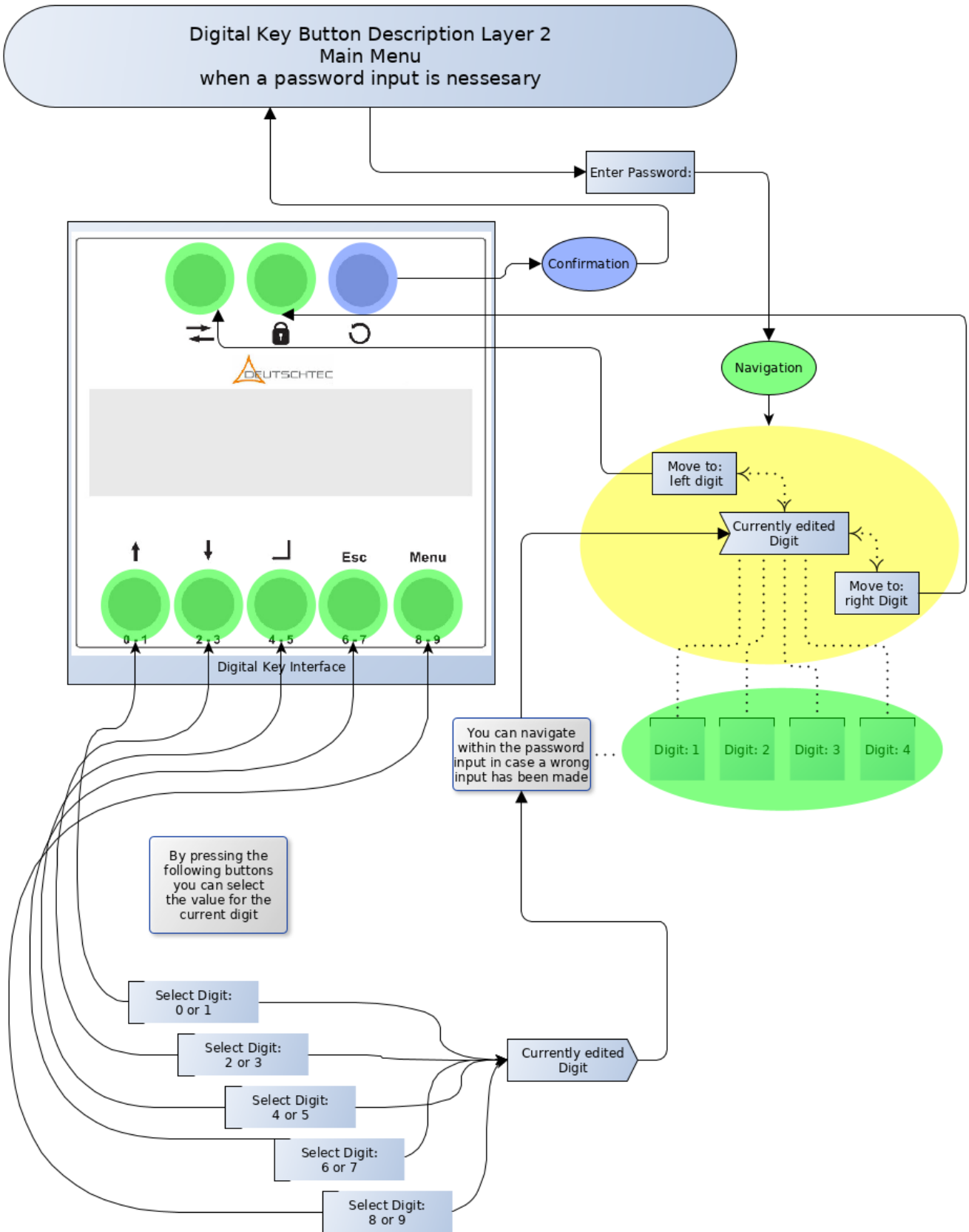
Main Menu Description Layer 1



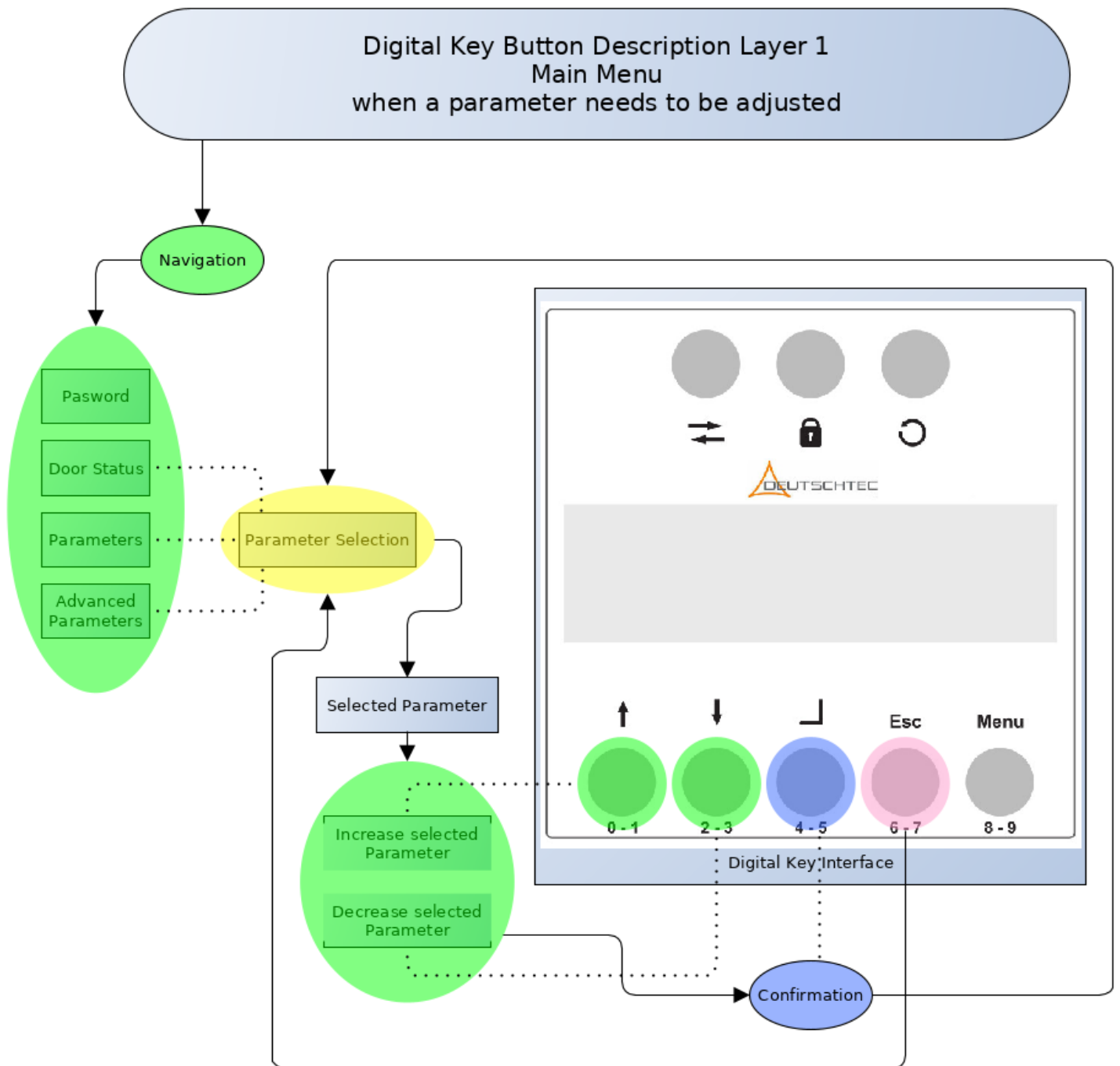
Main Menu Description Layer 2



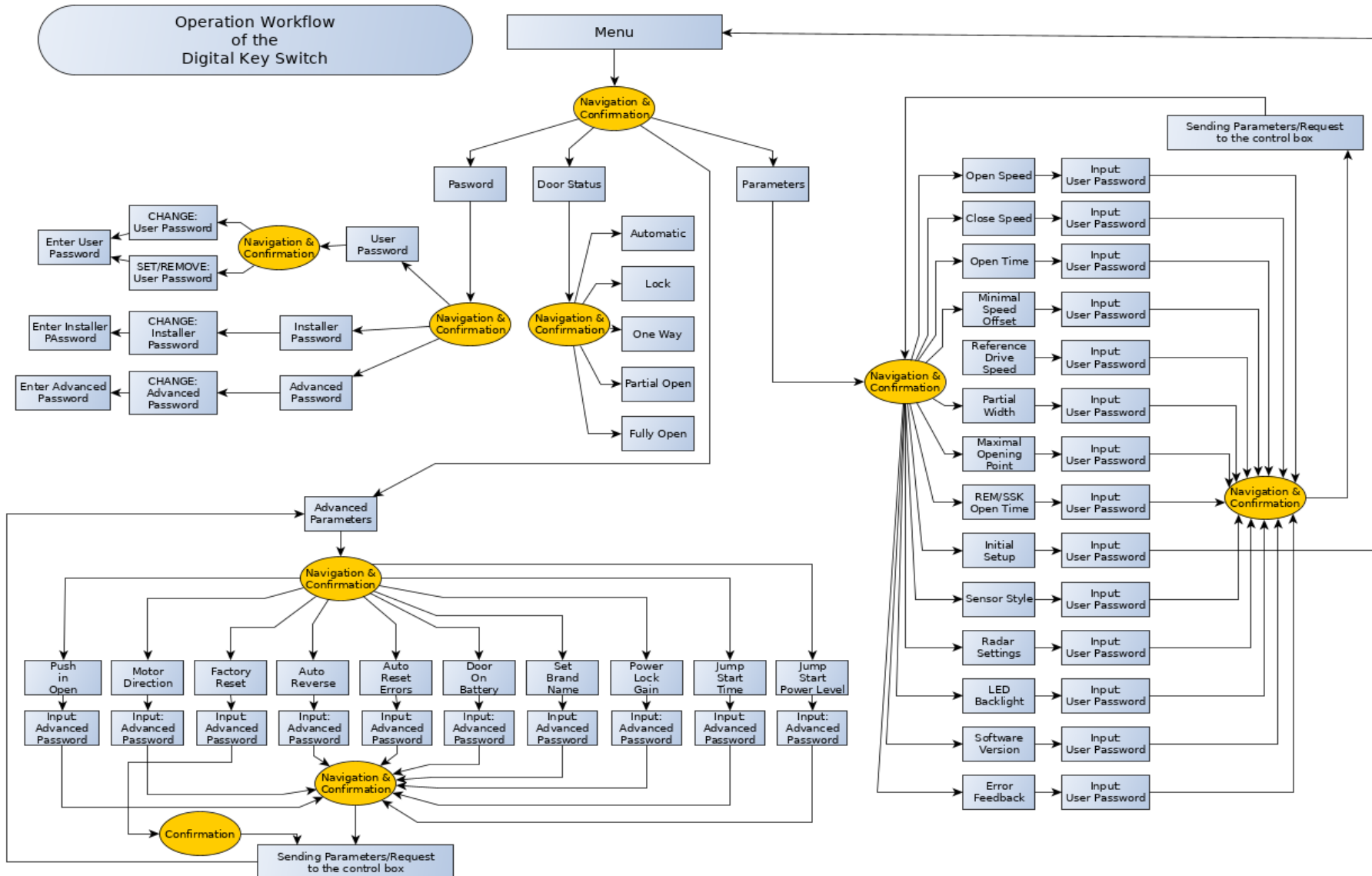
Changing Passwords



Changing Parameters



Operational Workflow



Passwords

Here you can change the passwords for:

- USER
- INSTALLER
- ADVANCED USER

In order to change the password you will have to enter the current password, afterwards you have to enter the new password twice.

Remove user password for installation or when there is no needed for it.

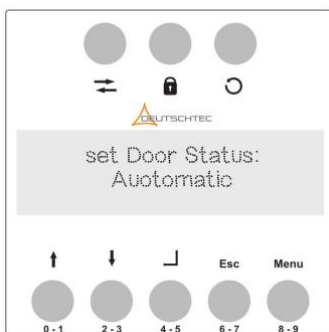
“Set Password” option appears when password has been removed before.

Door Status

After entering submenu “Door Status” the last performed function is displayed.

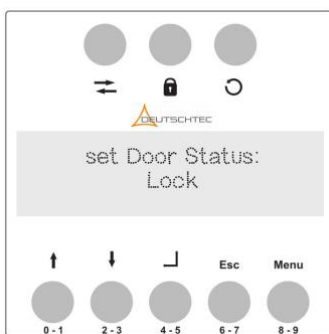
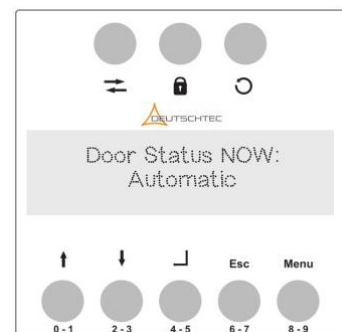
You can set the door from available function and after a few seconds a confirmation dialogue appears.

Display Feedback after the door functions have been changed and performed.



Automatic

The door closes and opens automatically according to the configured sensors.



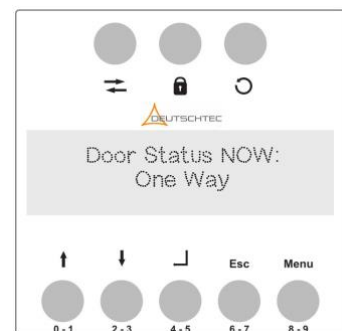
Lock

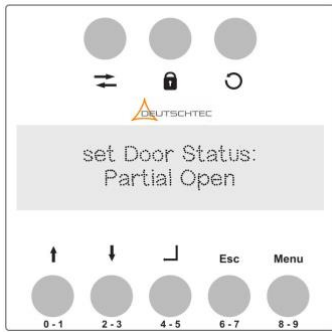
If a lock is installed on the configuration the door will be locked after this mode is set.



One Way

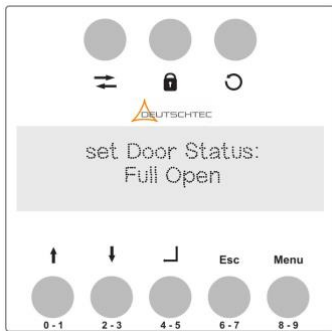
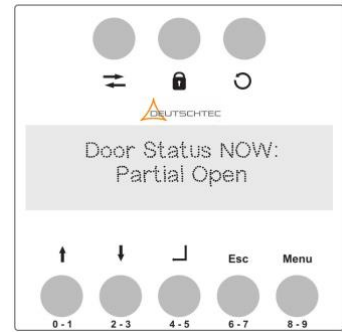
The door will be opened from one side and remain locked from the other side, regardless of sensory input.





Partial Open

The door opens partially according to the opening angle which has been configured or applied by default, within the Settings section.



Full Open

The door is opened to the fully extend of a possible angle and remains in this position, regardless of sensory input.

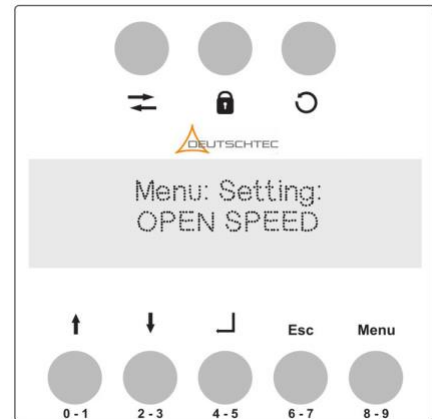


Settings

Common possible Settings are listed below:

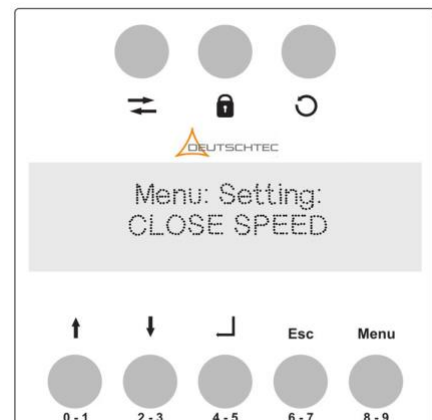
1. Open Speed

This parameter determines how fast the door will be opened. The speed is relative in % steps.



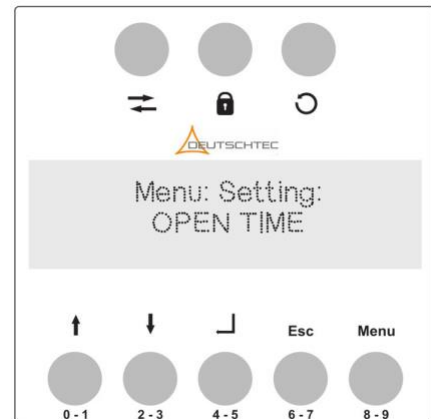
2. Close Speed

This parameter determines how fast the door will be closed. The speed is relative in % steps.



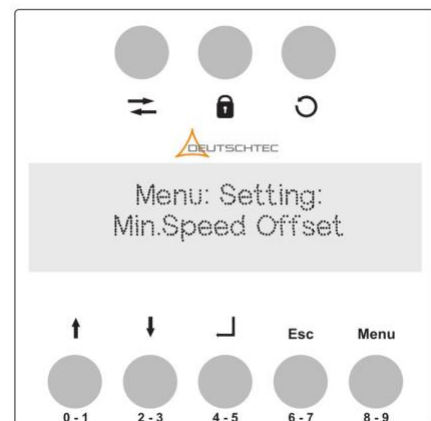
3. Open Time

This Parameter sets the open time of the door. Once the door is set in motion for the opening procedure this timer will be initiated. When the timer has reached the final timeslot the door will close. This timer can be overwritten by the Remote Open Time/SSK Open Time.



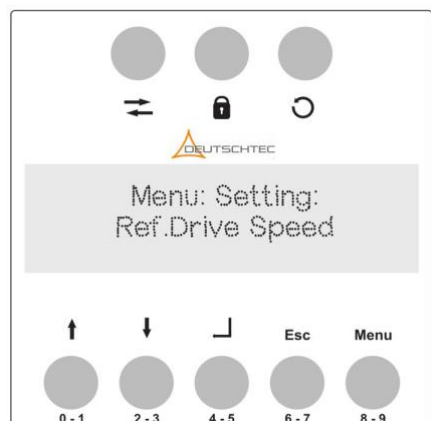
4. Minimal Speed Offset

This Parameter can manipulate the minimal speed of the door further.



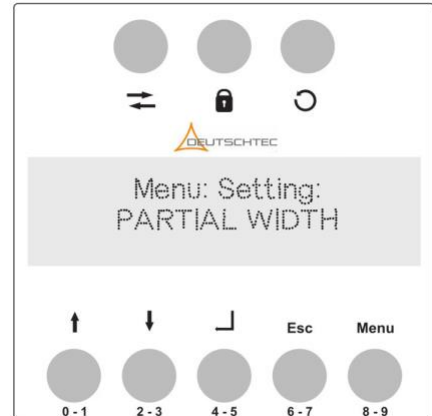
5. Reference Drive Speed

This value determines the minimal speed which is used during the initialization procedure of the door.



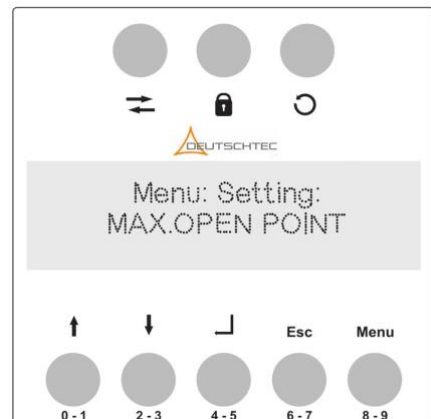
6. Partial Width

This parameter determines the length of the angle at which the door stops opening, while configured in the partial open mode.



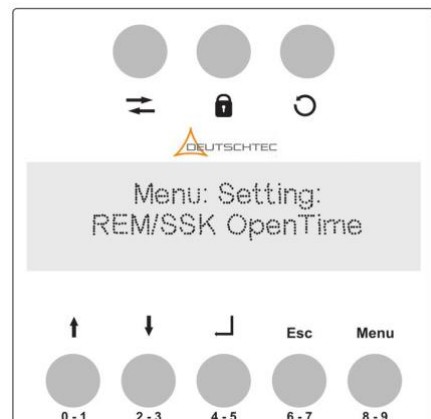
7. Maximal Opening Point

This parameter is a fine tuning parameter which determines the maximal opening point. By raising this value you can set off the maximal opening point of the door by millimetres.



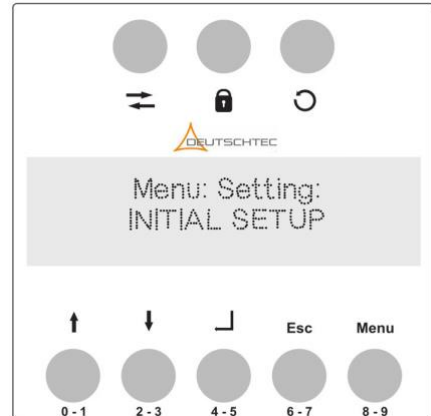
8. Remote Open Time / SSK Open Time

This parameter determines the opening time of the door when the door. Once the door is set in motion this timer will be initiated, as long as it comes from a remote commanding source. As soon as this time is over the door will be closed.



9. Initial Setup

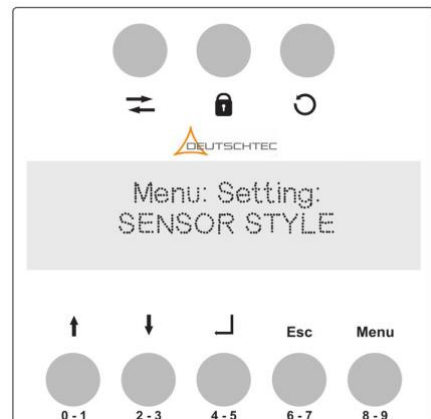
This segment initiates the scanning of the door current physical configuration of the setup.



10. Sensor Style

This parameter sets an internal interpretation of door setup:

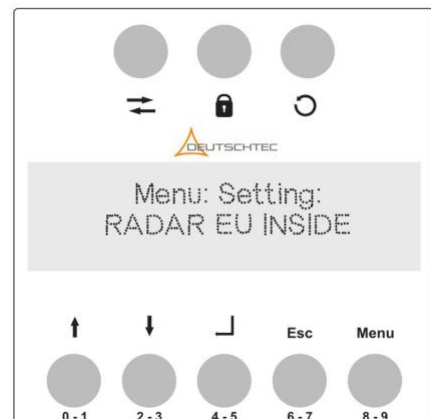
- International: without test sensors
- European: with tested safety sensors
- no sensor: without safety sensors present



11. Radar EU Inside

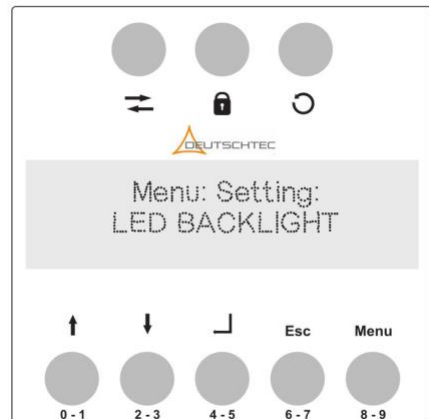
This parameter sets an internal interpretation of the configuration of the sensors which are installed on the door:

- Normal Open
- Frequency 100Hz
- current mA | DC



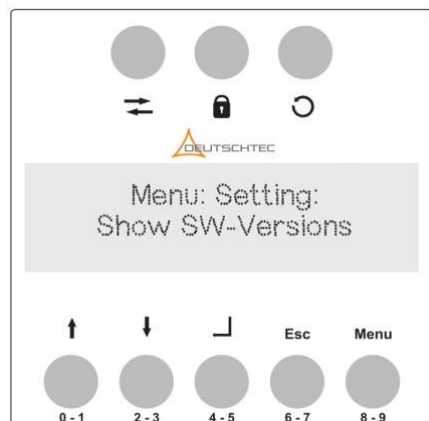
12. LED Backlight

This Parameter determines the magnitude levels of the backlight for the Digital Key Switch display.



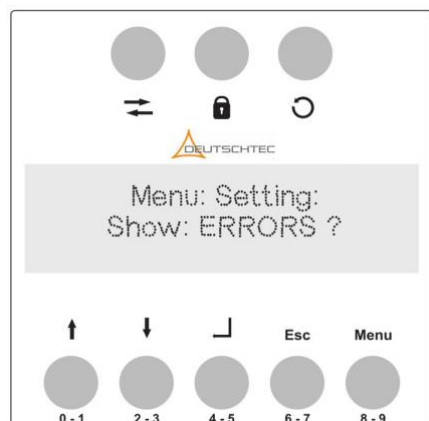
13. Software Version

This section displays the version of the Controllbox and the Digital Key Switch.



14. Displayed Error Feedback

This section displays the currently, categorically highest error code. See list of error codes from Appendix A, B, C.



Default Values

These parameters are manufacturing default values which every controller expected to have, and those can be loaded after a manufacturing reset is being performed.

Normal Default Parameters

| Number | Parameter | Range | Explanation |
|--------|-----------------------|--|---|
| 1 | Open Speed | 0 – 100 % | Sets the opening speed of a door |
| 2 | Close Speed | 0 – 100 % | Sets the closing speed of a door |
| 3 | Hold Open Time | 0 – 20 Sec | Sets the opening-hold-time which determines how long the door remains open |
| 4 | Minimum Speed Offset | 0 – 100 | Modifier for minimal speed |
| 5 | Reference Drive Speed | 30 – 150 | Modifier for reference drive speed |
| 6 | Partial Width | 30 – 100 % | Sets the the opening angle of the partial width mode |
| 7 | Maximal Open Point | 0 – 250 millimeters | Offset point for maximal stop point, in millimeters |
| 8 | Remote Open Time | 0 – 99 Sec | Override value which is used for Hold Open Time when the door has been opened by remote |
| 9 | Initial Setup | Fully Open | Scanning of the physical door setup |
| 10 | Sensor Type | “INTERNATIONAL” “EUROPEAN” “NO SENSOR” | Configuration without testing sensors Configuration with tested safety sensors Configuration without safety sensors present |
| 13 | Radar EU Inside | “Normal Open No” “Frequency 100Hz” “CURRENT mA DC” | Test mode of internal activation sensor (tested for emergency escape doors) |
| 16 | LED Backlight | 0 – 100 % | Power level of the backlight |
| 17 | Software Version | 1.1 | 2019 Release |
| 18 | Errors | 109 – 244 | See error list Appendix A, B, C |

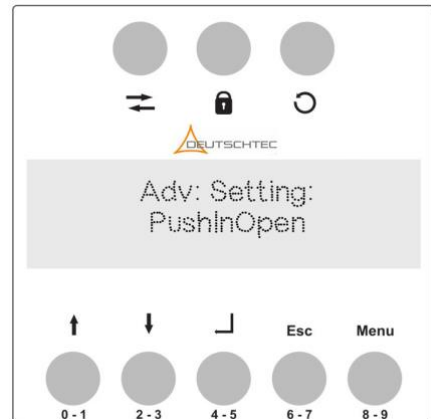
Advanced Default Parameters

| Number | Parameter | Range | Explanation |
|--------|------------------------|---------|--|
| 1 | Push in Open | 0 – 30 | This is a parameter which determines how long the motor will push in the final stopper. One level range of this parameter equates to 100 milliseconds. |
| 2 | Motor Direction | 0 – 1 | The value of this parameter determines the direction of the door motor. |
| 3 | Reverse Sensitivity | 1 – 5 | This parameter determines the level of sensitivity by which the door reacts To an obstacle during movement. |
| 4 | Time Autoreset Errors | 0 – 250 | This parameter is a timer to reset the current error situation. One configured value equates with 1 second |
| 5 | Run on Battery | 0 – 1 | This value determines if a battery is installed and ready to backup power failure. |
| 6 | Power Lock Gain | 0 – 12 | This parameter determines the power level which is manifested by the motor in case someone tries to open a door forcefully which was set to locked mode. |
| 7 | Jump Start Time | 0 – 20 | This parameter determines the time how long the jump start feature is available. One configured value equates with 100 milliseconds |
| 8 | Jump Start Power Level | 0 – 100 | This parameter determines the power of the motor which is going to be used During the jump start procedure |
| 9 | Factory Reset | 0 | This section initiates a factory reset of all parameters to a manufacturing standard. |

Advanced Settings

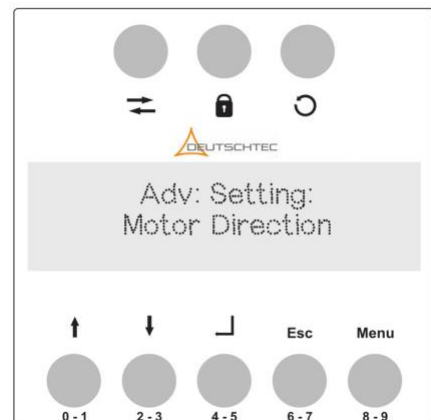
- Push in Open

This parameter is a timer, which indicates how long the door is using force into the stopper of the door.



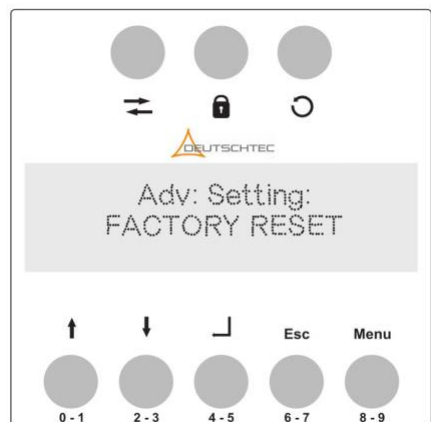
- Motor Direction

This parameter sets the direction of the motor for the door. With this parameter you can invert the door functions like partial open into partial close.



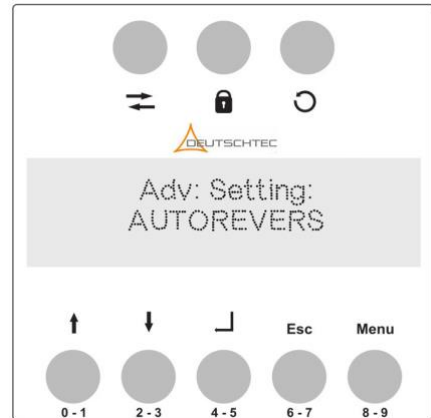
- Factory Reset

This section initiates a sequence which reset all previously arranged configuration proceedings and initializes all fixed default values from manufacturing standard.



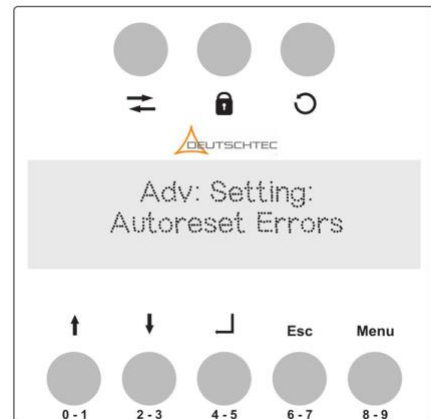
- Autorevers

This parameter determines the sensitivity level of the door, when an obstacle is encountered during movement. The higher the level is, the more sentient the door will react with a counter movement.



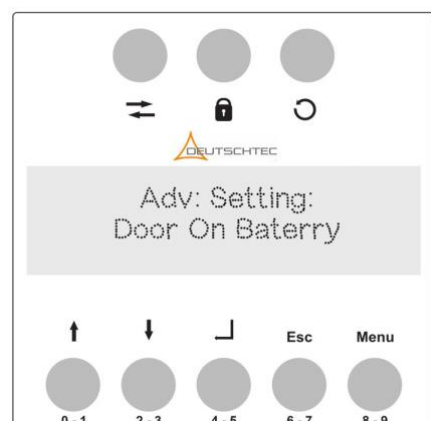
- Auto Reset Errors

This parameter is a timer which is initiated from an occurring error. When this timer runs out the error is automatically reset and the operation continues.



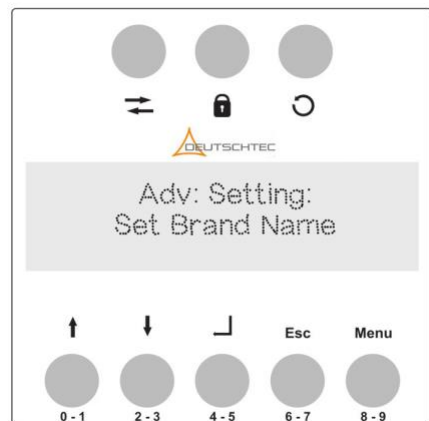
- Door On Battery

This parameter configures the setup the Controllbox is supported by a battery, in case of a power failure. This setup determines how the door is going to behave in a power outage.



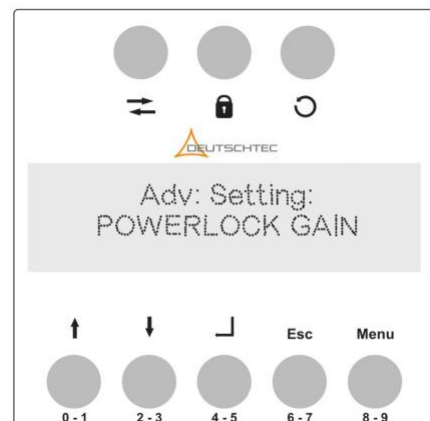
- Set Brand Name

With this parameter you can switch between the currently available brand names of the product.



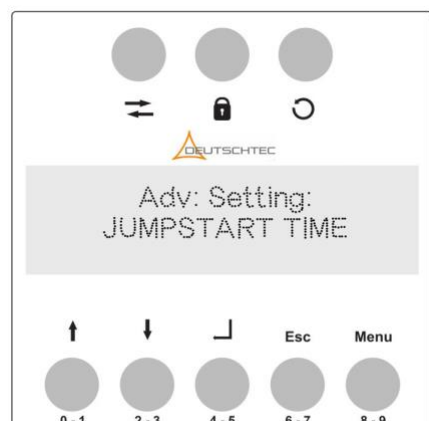
- Power Lock Gain

This parameter determines the power level of the lock function. When someone tries, forcefully open a locked door, this parameter determines the level of force the motor is going to counteract the attempt to open the door.



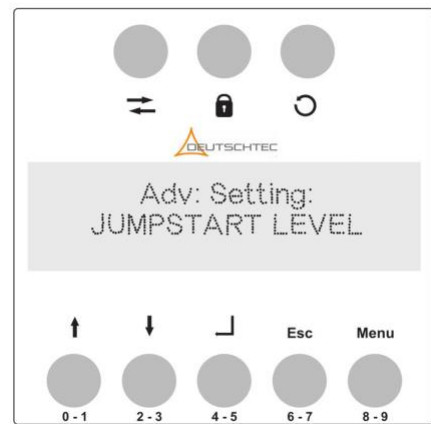
- Jump Start Time

This parameter sets up a timer how long the jump start feature is going to be executed. One incremental level of this setting equates to 100 milliseconds.



- Jump Start Power Level

This parameter determines the power level which is going to be used while the jump start feature is active.



Appendix A: LED Status

| LED | Description | LED indicator |
|-----------------------|----------------------------|----------------------|
| Info Service | | |
| Turns solid blue | Delivery State | 10 |
| Flashes quickly blue | start homing | 11 |
| 1x falshing blue | Not OK learn opening width | 12 |
| 2x falshing blue | Internal SLT OK | 13 |
| 3x falshing blue | Door dimensions not OK | 14 |
| 5x falshing blue | International SLT not OK | 15 |
| Flashes quickly green | USB is plugged | 17 |

Appendix B: Common Errors

| LED | Description | Error Code |
|----------------------|----------------------------------|-------------------|
| Turns solid yellow | Door not referenced | 109 |
| Flashes quickly blue | Programming switch not OK | 145 |
| 1x falshing yellow | Load disconnection | 120 |
| 2x falshing yellow | Sensor outside defect | 111 |
| 3x falshing yellow | Sensor inside defect | 110 |
| 6x falshing yellow | Power supply not OK | 100 |
| 7x falshing yellow | Door is locked | 130 |
| 8x falshing yellow | Door is blocked | 130 |
| | Locking element blocks | 141 |
| | Micro swich bar element | 144 |
| 9x falshing yellow | Door does not close | 121 |
| 10x falshing yellow | Command door to | 101 |
| Flashes quickly red | Power supply not OK at's version | |

Appendix C: Critical Errors

| LED | Description | Error Code |
|---------------------|-------------------------------|-------------|
| Turns solid red | Door not referenced | 250 |
| | H bridge defective | 240 |
| | I2C time out | 251 |
| | EEPROM broken | 253, 254 |
| Flashes red | RS485 master error | 238 |
| Flashes quickly red | Restore factory settings | 239 |
| 1x falshing red | Sabotage | 233 |
| | Holdingscircuit off | 202 |
| 2x falshing red | Test of outdoor sensor failed | 200 |
| 3x falshing red | Test of inside sensor failed | 201 |
| 4x falshing red | Battery low | 210,211 |
| 5x falshing red | No inrush current on | 223 |
| | No inrush current to(?) | 224 |
| 6x falshing red | Key switch self test failed | 230,231,232 |
| 7x falshing red | Door is locked | 130 |
| 8x falshing red | Sftware version not OK | 245 |
| 9x falshing red | Broken wire motor | 241 |
| | Pulse generator failure | 243 |
| | Drive can not open | 244 |