Automatic Sliding Gate

Maximum Span: 10 Metres
Duty Cycle: 100%
Instructions For: PF9000A/M
This equipment is part of a large range of traffic flow products. They are designed to be easy to install, as all settings and internal wiring has been completed in our factory. Any of the instructions in this manual should only be carried out by a qualified service engineer or a competent person.

The gates are ready to bolt down, connect in the single phase supply and any loops etc and then power up. In this manual there is important information on how to do this, but most importantly of all how to do this safely. Please approach any task responsibly and safely.

The following information is a guide only, and whilst we have made every effort to be accurate and correct there may be printing errors which we cannot be held responsible for.

With a correct installation you can expect to enjoy many years of reliable service from this product, we do however recommend that the product has a bi-annual service carried out by an engineer. Please contact our service department to obtain a quote. As we manufacture the products we are best suited to care for your equipment.

Thank you for your custom and welcome to the exciting world of Total Traffic Flow Solutions.

Important Safety Notice

Sliding Gates are designed to Control the flow of vehicular traffic primarily. It can be dangerous to allow the passage of pedestrians and any other self-powered animal or device to utilise this method of access without appropriate warnings and or signage.

It may be necessary for the end user of this product to provide an alternative, safe method of access to cater for the previously mentioned categories.

The end user should fit all necessary signage and warning notices to either side of the gate, which should be visible and clear from all directions of approach.

The product that was shipped to you was designed with a control program to protect all categories from harm or affect this however is only a fail safe and should not be modified or tampered with by any unauthorised person not sanctioned by the manufacturer.

Please sign and date below to say that you have read and understood this notice before ANY installation work:

/ /20

Information on using this manual

- Read all information thoroughly
- Pay attention to all safety advice
- Be aware of the symbols (shown above right and above left) as they have different meanings. One is an information symbol, the other a warning
- There are many artists impressions of the product in this manual you should refer to the images as a guide only. Professional CAD drawings should be used as a reference drawing and nothing else. As before every effort has been made to be 100% accurate in this manual but we cannot make any guarantees.
- As we constantly innovate our products we may change the quoted spec and any other details that have been documented in this manual so you should always refer to the supplier to see if the manual that was shipped with your product is the latest edition.
- As with all electrical installations you should use a qualified electrician and obey all of the latest laws and regulations.
- Be sure to fill out and complete ALL paperwork where instructed as this manual is the equipments log book and maintenance manual.

The “Warnings” leaflet and “Instruction booklet” supplied with this product should be read carefully as they provide important information about safety, installation, use and maintenance.

Scrap packing materials (plastic, cardboard, polystyrene etc) according to the provisions set out by current standards. Keep nylon or polystyrene bags out of children's reach.

Keep the instructions together with the technical brochure for future reference.

This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.

The Company declines all responsibility for any consequences resulting from failure to observe Good Technical Practice when constructing closing structures (door, gates etc.), as well as from any deformation which might occur during use.

The installation must comply with the provisions set out by the following European Directives: 89/336/CEE, 73/23/EEC, 98/37/EEC and subsequent amendments.

Disconnect the electrical power supply before carrying out any work on the installation. Also disconnect any buffer batteries, if fitted.

Fit all the safety devices (photocells, electric edges etc.) and all system components provided with an earth terminal.

The Company is not responsible for any lack of conformity with the national safety regulations.
This article describes how your equipment will be delivered to you, specifications on the transportation used and advice including health & safety on movement of the equipment.

The gate should ALWAYS! be in the central position before any movement commences, this ensures that the gate does not distort or get damaged. Refer to Manual Release instructions on Page 6 of this manual to move the gate into this position.

*Illustration shows gate central to main tower*

The manufacturer will use a qualified transport company to deliver the product conforming to the necessary regulations as detailed below:

- All drivers are qualified hi-ab certified
- All drivers are tested once yearly
- All drivers carry risk assessments and method statements (available on request)
- They are controlled under law to conform as there are no trade regulation standards to comply with

Health and safety Considerations:
Moving Goods Safely (MGS) is a national project involving both the Health and Safety Executive (HSE) and Local Authorities (LA) working in partnership. The project aims to reduce injuries and ill-health arising from the movement of goods from supplier through haulier to the recipient and end user including any home deliveries. The project will focus upon the delivery and collection of goods and the hazards this generates. It covers the main areas that cause the majority of injuries and ill-health to workers, including:

- Workplace transport;
- Slips & trips, and;
- Musculoskeletal disorders (MSD).

The movement of goods presents us, as health and safety regulators, with the challenge of dealing with a huge variety of issues. The commercial organisations involved within the movement of goods are diverse including haulier, third party logistics providers, pallet networks, retailers etc, with some very large companies, thousands of small businesses and the self-employed. The movement of goods is more than just trucks on the road with a large proportion of accidents happening at the delivery/collection sites that are often not directly under the control of the company making the delivery or collection. Communication and cooperation problems can arise due to the many organizations involved in the movement of the goods, and this can also lead to difficulties in effectively managing health and safety.

(Source H&S Executive UK 2008)
1. When delivered, the gate is locked in a central position so that the gate is balanced when lifted from the top of the tower.
2. Lower the gate onto the plinth and visually align the gate and catch-post into position. Using one M20 fixing, bolt down the main tower using one of the rear bolt-down holes.
3. Making sure that the gate is still visually aligned, use one M16 fixing and bolt down the rear support wheels (on the opposite side to the hole used on the main tower) see below.
4. Manually slide the gate into the closed position to fine tune the alignment of the gate with the catch post. (See Page 6 for details on Manual Release)

The numbers in the text document below relate to the drawings below.

Component Identification and Notes:

You should check that you have received the following in your order as they are referred to throughout this manual (note this can change per gate spec i.e. manual components are different from automatic):
5. Manually slide the gate back into the central “balanced” position taking care not to move the tower or rear wheel support base plate.
6. Finish bolting down the rear support wheel base-plate and the main tower of the gate making sure that it is true and square in both directions.
7. Slide the gate until the centre of the lower main beam is in the centre of the rear support wheels and the centre of the main tower i.e. have the lower main beam supported centrally by the rear support wheels and the drive rollers.
8. Undo the 30mm nuts that lock the cantilever arm adjuster to relax the cantilever arm and leave the gate in an unstressed state.
9. Placing a level on the centre of the lower beam or lower rail, adjust the rear wheel support until the lower main beam is level. Manually pull the gate closed and adjust the cantilever until the gate is level.
10. Using a laser square or similar, make sure the photo-cells from the Main Gate Housing to the Catch Post line up (this should be already level as it is governed by the plinth levels).
11. Now fit the two photo cells provided in the pre drilled holes and connect using the wiring diagram (page 8). Once the Photo Cells have been connected, complete the installation of the Catch Post using 4 x M16 fixing bolts (supplied) making sure that it is true and square.
12. Now most important of all, you must fit the rear roller as shown (under the parts list on the previous page), which is universal in the way it can be fitted. It can either be used as a “cast in” post, or the bottom strut can be cut off and used as a “bolt down” roller all illustrated below.
Please use the following instructions to operate the gate manually, the following is assuming you have powered down the unit and opened the main tower door:

**IMPORTANT NOTE**
In order for the equipment to comply to the legislation/directives noted in this document it must be maintained and have a maintenance schedule as documented in Regulation 5 of “The workplace health & Safety Welfare Regulations 1992”

As stated at the beginning of this manual we recommend a bi-annual service, but at a bear minimum, it is imperative that you get a service done once every 12 months. This is not a sales tactic in disguise, there is a very serious health and safety issues/risks associated with not complying to this. Also in order for your gate to keep complying with the appropriate legislation.

- Before carrying out any maintenance to the installation, disconnect the mains power supply.
- Make sure you have disconnected/Isolated the power before attempting any work.
- A Maintenance Contract should be sought from a specialist company after a maximum of 5000 manoeuvres or 1 year from the install date.
- Occasionally clean the photocell optical components and make sure they are free from dirt, water, rain, soil etc..
- Have a qualified technician (installer) check the correct setting of the electric clutch.
- If the power supply cable is damaged, it must be replaced by the manufacturer or its technical assistance service, or else by a suitably qualified person, in order to prevent any risk.
- When any operational malfunction is found, and not resolved, disconnect the mains power supply and request the assistance of a qualified technician (installer). When automation is out of order, activate the manual release to allow the opening and closing operations to be carried out manually.
- Gearbox drive unit is “sealed” for life and requires no further lubrication.

1. Remove the dust cover plug then get the brake release key from its holder in the cabinet and insert it into the top of the motor.

2. Keep pushing with a downwards pressure and turn clockwise to screw into the hole which will release the brake. Do this until you feel it is hand tight.

3. Remove the release key from holder on the door then insert the release key in the exposed hole.

4. Now the Key is inserted fully into the top hole turn clockwise to open and anti-clockwise to close. After this you must remove the brake key and replace the bung. FAILURE TO DO THIS WILL ALLOW DAMAGE THE BRAKE/MOTOR AND THE GEARBOX. !!!!!!! THIS IS VERY IMPORTANT!!!!!!
If you have a PLC timer fitted then please use the guide below.

3.1 Run and Stop modes
The Zelio PLC has two modes: **run mode** and **stop mode**. These are selected via the Zelio front panel by pressing the MENU/OK button, scrolling with the arrow keys to RUN/STOP and pressing MENU/OK again. Run is the normal operation mode. When Stop mode is selected, the PLC will ignore its inputs and no outputs will be activated.

**Note:** When **run mode** is selected via the menu, the choice of initialising the non volatile memory in the PLC is given. *If the option to initialise the memory is selected (“WITH NONVOLAT Ini”), changes made to the configuration using the custom menu system described in section 3.4 will be reset to default values. However, changes made via the parameters menu as described in section 3.2 will not be reset.*

It is suggested that all normal configuration be done in run mode. This is because the parameter menu is somewhat simplified in this mode, and the custom menu system is only available when in this mode.

3.2 Configuring parameters via the parameter menu
*Only an overview of using the parameters menu is given here. For details consult the Zelio documentation, as the parameters menu is a standard feature of the Zelio PLC. Only editing the parameters menu in run mode is described.*

3.2.1 Accessing the parameters menu
The parameters menu is accessed by pressing the MENU/OK button, scrolling with the arrow keys to **CONFIGURATION**, and pressing MENU/OK again. Once this is done the first parameter (normally **H1**) will be displayed, with the cursor (i.e. the flashing character) positioned near the top left of the screen on the parameter number. Whilst the cursor is in this position (and only whilst in this position), the up arrow will then cycle forwards through the list of available parameters (i.e. **H1, H2, TT1, TT2 ... TT7**) and the down arrow will cycle back. As this is done, the screen will change to show the relevant information for that parameter. The diagram below shows a typical screen shot for clock parameter **H1**, with the bold character showing the cursor position:

```
H1 ----4--
```

The right and left arrows will move between the various parts of the screen that can be altered (see details below). When the cursor is in any position other than the top left, the up and down arrows alter the value that the cursor is currently over.

After altering a value with the up and down arrows, pressing MENU/OK or trying to move to a different parameter (by going to the top left and pressing up or down) will result in a message asking for confirmation of the changes – use the
When you first turn the gate on you will need to calibrate the gate, this in laymans terms means teaching the open and close positions. You can also follow this guide should you need to re-teach the positions in the future.

1. Enter the menu following the guide on page 9
2. Go to P.216 make sure that this is set to value 2 this tells the gate to auto learn new settings
3. Now go to P.210 and change the value to 5
4. Exit the menu and the display will show "C.R.L.I.
5. Press the “stop” button the dots at the bottom of the screen will now flash
6. The screen will display "E.I.E.U"
7. Using the “down” arrow move the gate to the close position double check and move to step 8 (you have to hold the button in to move similar to deadman mode)
8. Now you are happy with the close press and HOLD the stop key for 3 seconds to save the position
9. Now the display will change to “E.I.E.O”
10. Using the “up” arrow move the gate to the open position double check and move to step 11 (you have to hold the button in to move similar to deadman mode)
11. Now you are happy with the open press and HOLD the stop key for 3 seconds to save the position
12. The display will show 1555 this denotes that the gate wants to run backward and forward to learn the torque settings and braking distances etc. To complete the learning process just keep pressing the up and down arrow unit the display shows OPEN when opening and CLOSE when closing. The calibration /Learning is now complete.
13. Now you must enter the menu and change P.216 back to value 1 and save, this inhibits the gate from self learning and settings thus keeps the positions you have taught in.
There are many options to operate the gate and is dependant upon which type of access control you have connected. However there is a standard way to operate the gate by using the key switch and the arrows on the front of the panel. Instructions are assisted by pictures below.

1. Picture shown below is the key switch (if fitted) which is located on the outside of the gate cabinet (it will always be on the opposite side to the gate arm, also picture shows the key switch keys.
2. To move the gate using the arrow keys on the panel first make sure the screen says “-e.o-” (end position open) or “-e.c-” (end position closed) if it does not follow the troubleshooting guide on page 11 when the screen does say “-e.o-” or “-e.c-” follow below.
3. To make the gate move to “open” press the up arrow.
4. To make the gate move to “close” press the down arrow.

Please note that the step 4 manoeuvre will not work if there is something in the way of photocells a presence on the loops.

There are many options to operate the gate and is dependant upon which type of access control you have connected. However there is a standard way to operate the gate by using the key switch and the arrows on the front of the panel. Instructions are assisted by pictures below.

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3. To make the gate move to “open” press the up arrow.
4. To make the gate move to “close” press the down arrow.

Please note that the step 4 manoeuvre will not work if there is something in the way of photocells a presence on the loops.
1. On the front of the panel locate the function buttons (figure.1)
2. Press and hold the “up” arrow and “stop” button together for 3 seconds (figure.2).
3. The LCD display and change to P.000 or P.xxx (xxx will be a parameter number last used) you are now in programming mode and can follow the next line of instructions. When finished and to exit programming mode press and hold the stop button for 5 seconds.

Scroll to P.999 and press the STOP button. This will display “0001” change this to “0003” and press and hold stop until the dots stop flashing under this text. Then press and release STOP button again to exit that parameter.

4. To enter a parameter scroll using the arrow keys until the LCD display show the number you require (figure.3) using the command buttons (figure.2). When the display shows the parameter number required in the first column of the table below, press the STOP button for one second. You are now in that selected parameter, should you wish to leave this parameter or discard any changes simply press the STOP button again for 1 second ONLY!! To make any adjustments in the selected parameter simply use the arrow keys (figure.2) up or down, when the appropriate value is selected you should press and hold the STOP button until the flashing dots between the value cease to flash (see figure.4). The value you selected has now been saved to memory. To exit the menu press and hold the “stop” key for seven seconds until the LCD display shows “STOP” or “AU” (figure.5)
Please note you DO NOT need to use these unless you have a problem!!

1. Follow the guide on page 10, to enter the menu.
2. Scroll to parameter P.990 change the value to 1 (this will default the panel to factory default)
3. Continue to change the parameters to the values below.

<table>
<thead>
<tr>
<th>Parameter Number</th>
<th>Change to</th>
<th>What this parameter does</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.991</td>
<td>0200</td>
<td>Tells the panel it is connected to a gate</td>
</tr>
<tr>
<td>P.990</td>
<td>1</td>
<td>Sets the gate back to default <strong>WARNING!</strong></td>
</tr>
<tr>
<td>P.802</td>
<td>0302</td>
<td>Activates Plug in loop Detector <strong>IF YOU HAVE ONE FITTED</strong></td>
</tr>
<tr>
<td>P.702</td>
<td>0801</td>
<td>Set Output 2 to release the brake on the motor</td>
</tr>
<tr>
<td>P.507</td>
<td>0501</td>
<td>Enables the top photocells</td>
</tr>
<tr>
<td>P.506</td>
<td>0501</td>
<td>Enables the bottom photocells</td>
</tr>
<tr>
<td>P.450</td>
<td>300</td>
<td>Increases the lag error detection time</td>
</tr>
<tr>
<td>P.438</td>
<td>50</td>
<td>Increases the rotation direction error time</td>
</tr>
<tr>
<td>P.352</td>
<td>15</td>
<td>Speed for <em>start</em> of close</td>
</tr>
<tr>
<td>P.350</td>
<td>25</td>
<td>Speed for close</td>
</tr>
<tr>
<td>P.312</td>
<td>15</td>
<td>Speed for <em>start</em> of open</td>
</tr>
<tr>
<td>P.310</td>
<td>25</td>
<td>Speed for open</td>
</tr>
<tr>
<td>P.216</td>
<td>1</td>
<td>Prevents the gate re-learning it own parameters.</td>
</tr>
<tr>
<td>P.F00</td>
<td>0</td>
<td>Turns off Wireless Safety Edge System</td>
</tr>
</tbody>
</table>

!! P.216 Must be set to “1” when calibration has finished
### Troubleshooting Guide

**Please note:** gate moves only in “dead-man” mode if you have any of the messages marked above (with this symbol: *) shown on the display.

<table>
<thead>
<tr>
<th>Message</th>
<th>Short description:</th>
<th>Cause of message</th>
</tr>
</thead>
</table>
| F.020    | Run time exceeded (during opening, closing or deadman) | • current motor run time has exceeded set maximum run time (P.410 (Opening), P.415 (Closing), P.419 (Deadman move)), door may be sticking or is blocked  
  • Door is blocked  
  • If using mechanical limit switches, one may not have tripped |
| F.030    | Lag error (position change of the door is less than expected) | • gate or motor is blocked  
  • insufficient power for providing necessary torque  
  • too little speed  
  • mechanical limit switch was not left or is defective  
  • Incremental or absolute encoder shaft is slipping  
  • wrong positioning system selected (P.205)  
  • one motor phase is missing  
  • the brake does not release  
  • Settings of the failure detecting time are not correct (P.430 or P.450) |
| F.031    | Detected rotational direction deviates from expected | • When using incremental encoders: Channel A and B reversed  
  • Motor rotation direction reversed compared with calibration setting ? teach in the limits again (P.210 = 5)  
  • Too much „pancaking“ when starting, brake releases too soon, or too little torque, adjust boost (P.140 or P.145) as necessary. |
| GBČĈĈĈĈ | External E-Stop 1 tripped | • E-Stop chain was interrupted starting at Input 1 |
| F.212    | External E-Stop 2 tripped | • E-Stop chain was interrupted starting at Input 2 |
| F.320    | Obstacle during opening | • During opening an obstacle has recognized |
| F.325    | Obstacle during closing | • During closing an obstacle has recognized |
| F.360    | Short circuit detected on edge input | • Short circuit detected on edges with normally closed contact |
| C.444    | Controller hardware reset detected | • Excessive noise on supply voltage  
  • Internal watchdog tripped  
  • RAM error |
| F.410    | Over-current (motor current or DC-bus) | • Wrong motor data set (P.100 – P.103)  
  • Non-adjusted voltage increase / boost set (P.140 or P.145)  
  • Motor not properly dimensioned for door  
  • Door sticks |
| F.425    | Overvoltage line supply | • The supply voltage for the controller is to high |
| F.510    | Motor / DC-bus overcurrent Limit 2 | • Wrong motor data set (P.100 – P.103)  
  • Non-adjusted voltage increase / boost set (P.140 or P.145)  
  • Motor not properly dimensioned for door  
  • Door sticks |
| F.520    | Overvoltage in DC-bus Limit 2 | • Brake chopper interference / defective / missing  
  • Feed voltage much to high  
  • Motor feeds back too much energy in generator mode, door motion energy cannot be sufficiently brought down. |
| F.521    | Overvoltage in DC-bus | • Input voltage supply too low, usually at load  
  • Load too great / final stage or brake chopper fault |
| F.525    | Overvoltage at the line supply input | • The line supply for the Controller is to high  
  • The line supply fluctuates very extremly |
| F.530    | Heatsink temperature outside of working range Limit 1 | • Excessive load on final stages or brake chopper  
  • Ambient temperature too low for controller operation  
  • Clock frequency of final stage too high (Parameter P.160) |
| F.535    | Housing temperature high | • The temperature inside the controller housing is to high |
| F.700    | Impossible combination of Limits | • Both limit switches are active at the same time |
| F.930    | External watchdog incorrect | • Defective hardware has been damaged by water or electric |
## Troubleshooting Guide

### Message | Short description: | Cause of message
--- | --- | ---
I.080 | Service counter will run off |  
I.100 | Speed in open position to high |  
I.150 | Speed in close position to high |  
I.160 | Permanent open command still active |  
I.161 | Priority not active |  
I.170 | Forced opening active |  
I.180 | Wait for foil key command |  
I.199 | Door counter wrong |  
I.200 | New reference position taken over |  
I.201 | Reference position new initialized |  
I.205 | Synchronisation done |  
I.210 | Limit switch not plausible |  
I.211 | Limit switch not plausible |  
I.200 | Reference corrected |  
I.205 | Reference position encoder |  
I.310 | Open command to door 2 |  
I.320 | Obstacle during opening |  
I.325 | Obstacle during closing |  
I.360 | Disturbed N.C. safety edge |  
I.363 | Disturbed N.O. safety edge |  
I.510 | Correction drive finished |  
I.515 | Active correction drive |  
I.520 | Pre set speed for open or close drive not reached |  
I.555 | Measuring rotation factor not ready |  
E.000 | *A ÏÖÑ on Keypad pressed" | Stuck button or cable not connected correctly  
E.050 | *A ÏÖÖ on Keypad pressed " | Stuck button or cable not connected correctly  
E.090 | *A ÏÖØ on Keypad pressed " | Stuck button or cable not connected correctly  
E.101 | *AÍÇÔPC active" | Permanent Stop Signal  
E.102 | *AÍÇÔPC active " | Permanent Open Signal  
E.103 | *AÍÇÔPC active " | Permanent Close Signal  
E.104 | *AÍÇÖPC active " | Lower “close” limit has made  
E.105 | *AÍÇÖPD active " | Upper “open” limit has made  
E.106 | *AÍÇÖPD active " | Photo-Cell or other safety device active  
E.107 | *AÈ*Stop Ext" | Photo-Cell or other safety device active  
E.108 | *AÈ*ÇÖPD active " | This input has been activated by connected device  
E.211 | *È*Barrier door safety switch open* |  
E.360 | *È*Safety Edge Tripped" |  
E.501 | *È ÓÔÔ ÔÇÁ | Presence on safety loop “Channel 1”*  
E.502 | *È ÓÔÔ ÔÇÁ | Presence on auto loop “Channel 2”*  

Please note: gate moves only in “dead-man” mode if you have any of the messages marked above (with this symbol: *) shown on the display.
Gate P991 = 0200

ASO Safety Relay

Mobil Safety (Opening)

Mobil Safety (Closing)

4x Stationary Safety (Opening and Closing)

Master Slave Control:
A.820 = 0201 Master
A.820 = 0200 Slave
Link Terminals 2,3,4 Only!
From Module Board

Safety Relay

Link to 24V

Link to 24V-GND

Warning Light

Brake

TST Toolbox
- Parameter update
- Diagnose
Software update
- Update Controller
- Update WiCab

RS485 <-> USB

To Encoder

Out 1

Out 2

CAN RS485

TST RFUZ - COM

TST RFUZ - COM

Gate P991 = 0200

Link to 24V

Link to 24V-GND

Warning Light

Brake

TST Toolbox
- Parameter update
- Diagnose
Software update
- Update Controller
- Update WiCab

RS485 <-> USB

To Encoder

Out 1

Out 2

CAN RS485

TST RFUZ - COM

TST RFUZ - COM
We have made the most common connections available without having to open the control panel cover see below for info. Please NOTE that you will have to enable the corresponding parameters to activate the inputs, as they are disabled in factory when testing the gates. The terminal block is GREEN in colour.

<table>
<thead>
<tr>
<th>COM</th>
<th>Close</th>
<th>Open</th>
<th>Spare</th>
<th>Spare</th>
<th>Spare</th>
<th>Photocell 24V+</th>
<th>Photocell Output</th>
<th>Photocell Switch</th>
<th>Photocell 24V-</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

**NOTE**

You Must enable the following parameters:

P.507 = 0501
P.506 = 0501
Master Slave Wiring

3 wires only

Master/Slave Wiring

Normal Photocell Wiring

<table>
<thead>
<tr>
<th>Master</th>
<th>Catch Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>+24 V</td>
<td>Wire to main panel IN 7</td>
</tr>
<tr>
<td>IN7</td>
<td>Terminals 86/85/84</td>
</tr>
<tr>
<td>GND</td>
<td></td>
</tr>
<tr>
<td>+24 V</td>
<td></td>
</tr>
<tr>
<td>IN6</td>
<td></td>
</tr>
<tr>
<td>GND</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Master/Slave Photocell Wiring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wire in Series</td>
</tr>
<tr>
<td>Yellows from Slave Photocells</td>
</tr>
<tr>
<td>Greys from Slave Photocells</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Master</th>
<th>Slave</th>
</tr>
</thead>
<tbody>
<tr>
<td>+24 V</td>
<td>86</td>
</tr>
<tr>
<td>IN7</td>
<td>85</td>
</tr>
<tr>
<td>GND</td>
<td>84</td>
</tr>
<tr>
<td>+24 V</td>
<td>83</td>
</tr>
<tr>
<td>IN6</td>
<td>82</td>
</tr>
<tr>
<td>GND</td>
<td>81</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Slave</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
<td>Link Out</td>
</tr>
<tr>
<td>85</td>
<td>85&amp;86</td>
</tr>
<tr>
<td>84</td>
<td></td>
</tr>
<tr>
<td>83</td>
<td>Link Out</td>
</tr>
<tr>
<td>82</td>
<td>82&amp;83</td>
</tr>
<tr>
<td>81</td>
<td>Blue</td>
</tr>
</tbody>
</table>

On Both Panels enable:
P.507=0501
P.506=0501
Every input/output is highly configurable, and can be changed from its default/state use. The below is a guide to what they can be changed to and the effect of this change. The logic behind this is as follows: On the wiring diagram each terminal has an input number this is noted as “IN6” for example. To change this or other values the table below quotes P.5x0 the “x” needs to be replaced with the input/output you wish to configure. So as an example if we wanted to change input “6” (terminals 82&83) we would replace the “x” with “6” making it “P.560”. Also note that the number following “P.” (in our example “5”) denotes we are dealing with and “input” if instead we wanted to deal with an “output” we would replace the “5” with a “7”. The below is a brief summary of common changes but there are MANY more options than listed here, for a full list please contact the supplying company.

### Inputs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit Range</th>
<th>Function</th>
<th>Description/Value of Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.5x0</td>
<td>0 ..... 18</td>
<td>Input Functions</td>
<td>With this parameter the functionality for parameter x is set.</td>
</tr>
</tbody>
</table>

0: Input deactivated  
1: OPEN command  
2: Single channel / pull switch  
3: Permanent open command  
4: Stop command  
5: Safety B  
6: Jog mode / Automatic switch  
7: Close command  
8: Door locking in end position  
9: Cross traffic input  
10: Deactivation input  
11: Limit switch input  
14: Safety A  
15: Simulation of foil key pad  
16: Safety C  
17: Door drive to intermediate stop / partial open  
18: External detector  

**Notes Area...**

P.5x2 0 ..... 1  Contact Type  Specifies the contact type of the switch which is connected to the input.  
0: N.O., Normally open  
1: N.C., Normally closed  

P.5x4 0 ..... 7  Hold-open time / Priority  This parameter specifies if and which hold-open time / forced closing time runs after activating the input.  

**Notes Area...**

0: Without auto close time  
1: With auto close time (P.010 or P.011)  
2: With minimum auto close time (P.015)  
3: No auto close time until a CLOSE command is given.  
4: Auto close time as used before with the last open command.  
5: The auto close time is stopped after activating in end position door OPEN and will go on after deactivation. By reversing during closing the min. auto close time is running.  
6: With Priority 1 (highest Priority: like PULSE OPEN)  
7: With Priority 2 (second highest Priority: like pull switch)  

### Outputs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit Range</th>
<th>Switching Condition of output relay</th>
<th>The selected output relay is energized under the following conditions:</th>
</tr>
</thead>
</table>
| P.7x0     | 0 ..... 27 | Switching Condition of output relay | 0: If End position Door OPEN was reliably detected  
1: If End position Door OPEN was not reliably detected  
2: If End position Door CLOSE was reliably detected  
3: If End position Door CLOSE was not detected  
4: If there is no fault condition or emergency stop, controller in Automatic mode  
5: Courtyard light function, during every OPEN and CLOSE move with 10 turn-off delay after opening. 6: Command forwarding  
This setting involves additional setting under P.7xF.  
7: During each OPEN and CLOSE move  
8: During each OPEN and CLOSE move and during active clearing time.  
9: Forward external door release (e.g., airlock operation)  
10: Forward external door locking (e.g., airlock operation)  
11: Magnet voltage during closing and in end position close  

**Notes Area...**

Continued Overleaf
### Outputs

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit Range</th>
<th>Function</th>
<th>Description/Value of Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.7x0</td>
<td>0 ..... 27</td>
<td>Switching Condition of output relay</td>
<td>With this parameter the functionality for parameter x is set.</td>
</tr>
</tbody>
</table>

#### Notes Area...

- **12**: Traffic light function
  - This setting involves additional settings under Parameter P.7x6 to P.7xd.
- **14**: Position forwarding
  - This setting involves additional settings under P.7x5.
- **15**: Output warning message from maintenance counter
- **16**: Airlock OPEN, forwards OPEN command to second airlock door
- **17**: Test of draw in safety device.
  - Relay is active in Endposition Close and is used e.g. to switch off the photo eye of the draw in safety in order to test it.
  - If this Function is used, you must use the N.O.(normally open) contact of the relay, because the relay is switched on if the Test-Mode doesn’t work.
- **25**: Test at the End-Position Door Open
  - Relay works at the End-Position Door Open
  - If this Function is used, you must use the N.O.(normally open) contact of the relay, because the relay is switched on if the Test-Mode doesn’t work.
- **27**: If the case temperature falls under the value adjusted with Parameter P.428

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Unit Range</th>
<th>Function</th>
<th>Description/Value of Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.7x1</td>
<td>0 ..... 1000,0 {Seconds}</td>
<td>Switching behaviour of relay</td>
<td>This parameter is used to set the switching behavior of the relay after activation.</td>
</tr>
<tr>
<td>P.7x2</td>
<td>0 ..... 999,9 {Seconds}</td>
<td>Turn-on delay</td>
<td>The relay is turned on after a time delay specified in this parameter.</td>
</tr>
<tr>
<td>P.7x3</td>
<td>0 ..... 999,9 {Seconds}</td>
<td>Turn-off delay</td>
<td>The relay is turned off after a time delay specified in this parameter.</td>
</tr>
<tr>
<td>P.7x4</td>
<td>0 ..... 1</td>
<td>Contact type</td>
<td>0: Normally Open 1: Normally Closed</td>
</tr>
</tbody>
</table>

**Reminder of how to enter/exit and navigate menus:**

1. Enter menu by pressing “stop” and “up” together
2. Use “up” and “down” arrows to scroll through parameters
3. Press “stop” key to view parameter currently shown on display
4. LED dot flashes when changes are un-saved - press and hold stop to save changes you have made
**OPERATING INSTRUCTIONS**

1. Turn OFF power to the control panel.
2. Plug the loop detector module into the pins provided on the motherboard of the control panel.
3. Adjust the function Dip-Switches on the loop detector card as required. Please refer to Dip-Switch Function Settings.
4. Turn ON power to the control panel.
5. The green ‘Power’ L.E.D. will flash continuously until the loop is tuned. Once tuned, the green ‘Power’ L.E.D. will illuminate constantly.
6. If a loop is faulty/not connected properly the red ‘Fault/Detect’ L.E.D. will illuminate constantly.
7. If a loop is covered the red ‘Fault/Detect’ L.E.D. and the green ‘Power’ L.E.D. will illuminate together.

**DIP-SWITCH FUNCTION SETTINGS**

**Loop 1:**

<table>
<thead>
<tr>
<th>Dip-Switches</th>
<th>Sensitivity (4 Steps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN.</td>
<td>ON</td>
</tr>
<tr>
<td>MAX.</td>
<td>ON</td>
</tr>
</tbody>
</table>

- Dip-Switch 3: Holding Time (5 mins - Infinity)
- Dip-Switch 4: Frequency (High/Low)

**Loop 2:**

<table>
<thead>
<tr>
<th>Dip-Switches</th>
<th>Sensitivity (4 Steps)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN.</td>
<td>ON</td>
</tr>
<tr>
<td>MAX.</td>
<td>ON</td>
</tr>
</tbody>
</table>

- Dip-Switch 7: Holding Time (5 mins - Infinity)
- Dip-Switch 8: Frequency (High/Low)

**INSTALLING A LOOP**

- **Loop Cable:** Rubberised insulated wire of 0.75-1.50 sq.mm (awg 20 - awg 16), preferably multi-stranded.
- **Loop Size:** Recommended depth to top of loop cable 25-50mm. (Maximum depth 65mm)
- **No. of Turns in Loop:**
  - 2 - 4m: 6
  - 4 - 7m: 5
  - 7 - 12m: 4
  - 12 - 25m: 3
- **Loop Slot:** Recommended position of the loop is 50mm above the reinforcement.
- **Feeder Cable:** The feeder cable MUST be twisted a minimum 10 times
- **Loop Placement:** The loop must be placed at least 5m away from high tension cables and at least 1m away from low tension cables. If the loop is placed in an area with reinforcing iron (typically a concrete floor), the loop must be placed at least 50mm above the reinforcement.

**TYPICAL EXAMPLE OF LOOP INSTALLATION**

**To Enable Loop When Plugged Into Panel P.802=0302**

**Description:**

- **Loop Detector Settings/Theory**
- **SUVEK1-A13**
- **SUVEK2-A13**
- **TST-SUVEK1**
- **TST-SUVEK2**
- **Terminal Connector**
- **Function Dip-Switches**
- **'Fault/Detect' Red L.E.D.**
- **'Power' Green L.E.D.**

**Diagram:**

- **1 Channel Loop Detector Layout**
- **2 Channel Loop Detector Layout**

**Notes:**

- Use a flexible, weatherproof sealant (i.e. Hot bitumen, Rubberised bitumen sealant).
- **Caution:** Never use cement / concrete, etc...
- The feeder cable MUST be twisted a minimum 10 times
- **Safety**
- **Auto Loop**
- **Conduit with Loop Cable Inside**
- **Sealant**
- **Door**
- **Feeder Cable in to 20mm Plastic Conduit**
- **Base**
- **Concrete / Tarmac**
- **Block Paving**

4 PRINCIPLE OF OPERATION

The inductive loop vehicle detector senses the presence of a vehicle over an area defined by a loop of two or more turns of wire, laid under the road or pavement surface. This loop of wire is connected to the detector by a twisted pair of wires called a loop feeder.

A vehicle passing over a sensing loop causes a small reduction in the inductance of the loop, which is sensed by the detector. The sensitivity of the detector is adjustable to accommodate a wide range of vehicle types as well as different loop and feeder combinations.

Upon detection of a vehicle passing over the loop the detector operates its output relays, which may be used to indicate controls associated with the installation.

4.1 Detector Tuning

Tuning of the detector is fully automatic. When power is applied to the detector upon installation of the system, or when a reset is initiated, the detector will automatically tune itself to the loop to which it is connected. The detector will tune to any loop with an inductance in the range 20 to 1500 microhenries (μH).

This wide range ensures that all loop sizes and feeder combinations will be accommodated in the tuning range of the detector.

Once tuned, any slow environmental change in loop inductance is fed to a compensating circuit within the detector, which keeps the detector correctly tuned.

4.2 Detector Sensitivity

Sensitivity of the detection systems dependent on factors such as loop size, number of turns in the loop, feeder length and the presence of metal reinforcing beneath the loop.

The nature of the application determines the required sensitivity, which may be adjusted by means of the sensitivity switches on the front of the enclosure.

Sensitivity levels of the PDI3O have been carefully optimised for parking and vehicle access control applications. The detection of small unwanted objects such as bicycles and trolleys can be eliminated by selecting lower sensitivity levels whilst high-bed vehicles and vehicle/trailer combinations will not loose detection by using Automatic Sensitivity Boost (ASB) option.

ASB operates as follows. When ASB is disabled, the undetect level is dependent on the sensitivity setting of the detector. Hence as the detector is made less sensitive, the undetect level will reduce accordingly. When the ASB is enabled, the undetect level will always be the same irrespective of the sensitivity setting and will be equivalent to the undetect level when the sensitivity is on maximum setting.
<table>
<thead>
<tr>
<th>ELECTRICAL ERRORS</th>
<th>CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank screen on Panel but power to other devices in the control panel</td>
<td>Door switch circuit not making</td>
<td>Press door switch in and check Panel screen</td>
</tr>
<tr>
<td></td>
<td>Panel has developed an electrical fault or had a power spike or blown on board fuses</td>
<td>Change fuses or panel MAKE SURE that the panel is run through a MCB 14 amp breaker</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>gate does not run (stays open)</td>
<td>Check panel is showing no F Codes or E codes</td>
<td>Power down then back up press and hold “stop” key to reset</td>
</tr>
<tr>
<td></td>
<td>Loop detector is faulting or sensing presence</td>
<td>Clear obstacle or reset the detector</td>
</tr>
<tr>
<td></td>
<td>Check panel settings have not been altered</td>
<td>Set P.990=1 then P.991=0101</td>
</tr>
<tr>
<td></td>
<td>gate staying up in raise position</td>
<td>Access control giving a constant pulse shorten this</td>
</tr>
<tr>
<td></td>
<td>Photo cell batteries (if fitted)</td>
<td>Check that the fitted batteries still have power to them. They should only be replaced with special 3.6V Lithium-ion batteries made for purpose. These can be provided by your supplier</td>
</tr>
<tr>
<td></td>
<td>Photo cells dirty (if fitted)</td>
<td>Clean photo cells make sure they are debris free</td>
</tr>
<tr>
<td>gate not going up</td>
<td>Access control may be faulty</td>
<td>Remove and check gate function via the Panel buttons</td>
</tr>
<tr>
<td>Mains on but no power</td>
<td>Isolator fuse</td>
<td>Check and meter fuse in isolator</td>
</tr>
<tr>
<td>gate Staying up</td>
<td>Car has driven off before clearing the loop panel is configured without “no passage” timer.</td>
<td>Complete cycle by going through the ground loop</td>
</tr>
<tr>
<td>-E.21- displaying on screen</td>
<td>gate door is open</td>
<td>Close door or check switch for faults</td>
</tr>
<tr>
<td></td>
<td>If photo-cells fitted then batteries may have expired</td>
<td>Check and if needed replace batteries</td>
</tr>
<tr>
<td></td>
<td>Faulty loop detector</td>
<td>Check &amp; set or replace faulty unit</td>
</tr>
<tr>
<td></td>
<td>gate does not have loops fitted or these have been removed</td>
<td>Call the technical department for assistance the program/wiring needs to change</td>
</tr>
<tr>
<td></td>
<td>Key switch left in open position</td>
<td>Put the switch back into the “Auto” position</td>
</tr>
<tr>
<td></td>
<td>Permanent supply/signal to the raise terminals</td>
<td>Check wiring to terminal blocks remove any access control try again</td>
</tr>
<tr>
<td>gate staying open and not closing</td>
<td>gate programmed for safety only or gate is on a timer</td>
<td>Contact your supplier for a program modification chip</td>
</tr>
</tbody>
</table>
## Troubleshooting Guide (mechanical)

<table>
<thead>
<tr>
<th>MECHANICAL ERRORS</th>
<th>CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gate not Moving</td>
<td>Motor brake locked on</td>
<td>Check brake is releasing</td>
</tr>
<tr>
<td>Gate creaking when moving</td>
<td>Gate alignment</td>
<td>Check and align gate correctly</td>
</tr>
<tr>
<td>Gate motor not running</td>
<td>Loss of voltage</td>
<td>Check motor supply test 3 phases</td>
</tr>
<tr>
<td>Gate not moving or closing</td>
<td>Drive shaft connections</td>
<td>Re-connect any drive shaft connections</td>
</tr>
<tr>
<td>Gate not moving or moving half way</td>
<td>Gearbox or gate track damaged</td>
<td>Gears/Track stripped due to overlading replace</td>
</tr>
<tr>
<td>Gate crashes into catch post</td>
<td>Cantilever arm not adjusted correctly</td>
<td>Adjust and check alignment</td>
</tr>
<tr>
<td>Gate not running at all</td>
<td>Door has been left open or switch not making</td>
<td>Close the door and check display is not reading e.211</td>
</tr>
<tr>
<td>Gate open and will not close</td>
<td>Key switch is left in open position</td>
<td>Turn key switch to auto if fitted</td>
</tr>
<tr>
<td></td>
<td>Loop fault or loop detecting</td>
<td>Check if green light is on detector if so remove object that it is detecting or replace loop</td>
</tr>
</tbody>
</table>

### Notes area

- PF9000 A
- PF9000 M
Potential System Hazard Areas

Please note these are things that you should look out for with the equipment that has been installed on your/your customers site. This is in no way a health and safety guide just a few key areas for you to be aware of and possibly make future changes to.

Plan view (from above)
Sketch system layout, detailing and numbering potential hazard areas for the client.

Potential Hazard Areas - see diagram:

1. ........................................................................................................................................................................
2. ........................................................................................................................................................................
3. ........................................................................................................................................................................
4. ........................................................................................................................................................................
5. ........................................................................................................................................................................

Additional Comments / Descriptions concerning safety on this site
........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................
........................................................................................................................................................................

.......................................................... Signed: ..........................................................
Section 1. What type of Gate do you require?

| PF9000M Manual Sliding Gate | PF9000A Automatic Sliding Gate |

Section 2a. Additional Information

<table>
<thead>
<tr>
<th>What is the span of the clear opening?</th>
<th>Gate length = mm</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PF Quote Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your Order Number</td>
</tr>
<tr>
<td>Customer Contact No.</td>
</tr>
</tbody>
</table>

Height of Gate required

Spikes Required? (yes or no)

Type of Infill Required

Section 3. Gate Handing Choice

- LEFT HANDED GATE
  - Viewed from outside, the main gate housing is located on the LEFT HAND SIDE of the opening
- RIGHT HANDED GATE
  - Viewed from outside, the main gate housing is located on the RIGHT HAND SIDE of the opening

- I require a LEFT handed gate shown above
- I require a RIGHT handed gate shown above

Section 4. Accessories Required

- UPS Battery back-up used for panel protection and gate can open/close automatically after power loss. **HIGHLY RECOMMENDED!**

Section 5a. Delivery or Install Address

- PF to install equipment
- PF to supply only

Section 5b. Additional Information (Use a separate sheet if necessary)
# Installation/Commissioning Check List

## System Operation - The user FULLY understands

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- How to operate the system with all control devices
- How to isolate the power to the automation system
- How to manually release the system in event of power failure
- The safety rules and issues associated with your system
- Safety devices on the system have been verified and checked
- Safety devices and features suit the site/application for which it was designed

## How to open the door on the equipment

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Check the following items

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

- Door keys have been handed over
- Key switch keys have been handed over
- All equipment and site has been left in a clean and safe state
- Any warning signage has been fitted by Engineer/Client to make people aware
- Any times and special programming instructions undertaken
- Product works the way site need it to this includes “no passage time out” etc
- System has had the completed conformity certificate

## All items on the delivery note have been handed over to client/site -

- this should be signed for on the separate sheet which is titled “Delivery Note” (green/or yellow paper) if parts missing call supplier

## The engineer has expressed the importance of regularly maintaining the equipment

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## POWER ISOLATION - The power isolator for your automation system is located at:

- .................................................................

The following denotes that the above has been completed to a satisfactory standard. The engineer has explained the system of operation to you and any devices that you have had fitted. If this is agreed and has been displayed please sign in the indicated fields below. All information will be passed on correctly to other system users. The users of the system will use this system correctly and safely.

Engineers Name: .................................................................  Engineers Signature: .................................................................

Clients Name: .................................................................  Clients Signature: .................................................................
This Manual **must** be completed in accordance with the guidelines below, **at any point** service/repair work is carried out on the product. This is to achieve two things:

1. To keep a history of the product for yourself and your supplier/manufacturer.
2. To keep an accurate log of any historical or recent modifications, and/or problems, to help an engineer in the event of any future work required on the product.

<table>
<thead>
<tr>
<th>Date</th>
<th>Reason for visit/Action taken</th>
<th>Engineers Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>/20</td>
<td></td>
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<td>/20</td>
<td></td>
</tr>
</tbody>
</table>
We certify that the system covered by this certificate has been commissioned satisfactorily.

<table>
<thead>
<tr>
<th>Contract Reference</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contract Title</th>
<th>Engineers Installing</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Installation Commenced</th>
<th>/ /20</th>
<th>Commissioning</th>
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<table>
<thead>
<tr>
<th>Works Description</th>
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<table>
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<tr>
<th>Part/Whole Certificate</th>
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<tr>
<th>Handover Date</th>
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</table>

Part 3. The system(s) designed and installed in accordance with the following documents:

<table>
<thead>
<tr>
<th>Document Ref:</th>
<th>Revision</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PF9000A/M</td>
<td>5.0</td>
<td>System guides and drawings as defined within O&amp;M Manuals</td>
</tr>
<tr>
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<td></td>
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</tbody>
</table>

Part 4. The following test procedures refer:

Check Lists (pages 15 & 16) /Commissioning Certificate

Part 5. Existing Installation Items not covered under warranty/ This certificate:

Part 6. Certificate Signing off Section

<table>
<thead>
<tr>
<th>Installers Name</th>
<th>Signature</th>
<th></th>
<th></th>
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</thead>
<tbody>
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<table>
<thead>
<tr>
<th>On Behalf of</th>
<th>Date of Signing</th>
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<tbody>
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<table>
<thead>
<tr>
<th>Address</th>
<th>Position</th>
<th>Qty:</th>
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<table>
<thead>
<tr>
<th>Client Name</th>
<th>Signature</th>
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<table>
<thead>
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<th>Position</th>
<th>Qty:</th>
</tr>
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<tbody>
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</tbody>
</table>
| Manufacturer & European Agent: | PF Ltd  
Unit 1 Kingsbury Link Industrial Estate  
Trinity Road  
Tamworth  
Staffs  
B78 2EX  
United Kingdom |
<table>
<thead>
<tr>
<th></th>
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</tr>
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<tbody>
<tr>
<td>Telephone:</td>
<td>01827 870 250</td>
</tr>
<tr>
<td>Description:</td>
<td>Automatic Cantilever Sliding Gate</td>
</tr>
<tr>
<td>Model Number:</td>
<td>PF9000A</td>
</tr>
<tr>
<td>Serial Number:</td>
<td></td>
</tr>
</tbody>
</table>

**Responsible Person:**  
Damian Speer  
PF Ltd

**Name:** Anthony Green

**Signature:** [Signature]

**Position:** Managing Director

**Date:** 2nd November 2010
EG-Baumusterprüfbescheinigung

EC type-examination certificate

Registrier-Nr.
Registration No.
44 205 10 384294

Zeichen des Auftraggebers
Customer's reference

Auftragsdatum
Date of order
25.06.2010

Aktenzeichen
File reference
6000384294

Prüfbericht Nr.
Test report no
10 205 384294-001

Name und Anschrift
des Auftraggebers
Customer's name and address
FEIG ELECTRONIC GmbH
Lange Straße 4
35781 Weilburg – Waldhausen

Erfüllt mit dem u. g. Produkt die Anforderungen des Anhangs I der Maschinenrichtlinie 2006/42/EG als eine Grundlage für die EG-Konformitätserklärung.
The product described below meets the requirements of annex I of the directive 2006/42/EC as a basis for the CE declaration of conformity.

Geprüft nach
Tested in accordance with
Maschinenrichtlinie 2006/42/EG
Machinery Directive 2006/42/EC
EN 12453-2000
Abschnitt 5.2 / Chapter 5.2
EN ISO 13849-1:2008
Anforderungen an Performance Level d
Requirements according to Performance Level d
EN 60911:2005
Anforderungen an SIL1
Requirements according to SIL1
EN 60335-1:2002
+A1:2004
A11:2004
+A2:2006
+A12:2006
EN 60335-2-103:2004

Beschreibung des Produktes
Description of product
(Siehe Anlage 1)
(Türantriebssteuerung / Door control unit)

Typenbezeichnung
Type / type
TST FUZ

Bemerkung
Remark
Bitte beachten Sie auch die umseitigen Hinweise.
Please also pay attention to the information stated overleaf.

TÜV NORD CERT GmbH
Zertifizierungsinstitut / Certification body
Maschinen / Machinery
Benannte Stelle 0644 / Notified Body 0644

Gültig bis / Valid to: 24.09.2015
Hannover, 24.09.2015

Ralf Laborencz