

# INSTALLATION AND OPERATING MANUAL FOR SLIDING-1300/2100

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### 2. GENERAL SAFETY INSTRUCTIONS FOR INSTALLATION AND MAINTENANCE

- For an efficient and safe automated door, correctly observe the installation procedures and instructions for use.
- Incorrect installation and use can cause serious damage to persons and property.
- Carefully read the whole installation manual before you begin installing.
- Do not make any modifications which are not mentioned in this manual.
- Do not install the operator for uses other than those indicated.
- To fasten, use the supplied accessories or, in any case, fastening systems (screws, expansion plugs, etc.) suitable for the type of support
  and for the mechanical stresses exerted by the automated system.
- Check if the gate conforms to standards EN12604 and EN 12605 (the information can be found in the documentation accompanying the
  gate itself). For non-EU countries, the above mentioned standards must be observed in addition to the national standard references to
  obtain a suitable safety level.
- Make sure that the gate is correctly operational, and supplied with mechanical opening stops.

### When installing we advise you to:

- obtain the material and tools indicated in the following paragraph "Tools and materials" and keep them near at hand.
- use a stable support for performing operations without a floor support.
- protect your face and hands adequately before making the holes with the drill.
- · do not allow children to play near during installation, use and during the automated system release manoeuvre.
- remove any debris and objects which could hamper movement, before powering up the system.
- remove the gate's closing mechanism to ensure the gate is closed by the automatism.
- stick on the warning stickers as shown in the instruction.

### When you have finished installing we advise you to:

- Make sure that no part of the gate interferes with public spaces such as pavements and/or roads.
- Use the automated system observing the instructions in the "User's guide".
- Fill in, keep and update the maintenance register.
- The SLIDING automated system does not require periodic replacement of parts.
- Every month, run a functional check of the safety devices.



If the power cable of operator SLIDING is damaged, it must be replaced by qualified personnel, using a new cable of the same type. Do not use different power cables.

### **3. TOOLS AND MATERIALS**

Tools you will require to install the SLIDING operator:







- Set of flat wrenches for hexagon head screws
- 2. Set of screwdrivers for cross-head and cut-head screws
- 3. Set of wall bits
- 4. Set of iron bits

- 5. Flat-nose pliers
- 6. Saw on metal
- 7. A hammer drill
- 8. 8. Folding rule (2 m)

### Material required for installing the SLIDING operator and the relevant accessories (if present):

- Cable 2x0,5 mm2 (emitting photocells, pulse generators for opening movement and stop)
- Cable 4x0.5 mm2 (receiver photocells)
- Cable 2 x 1.5 mm2 (power)

1.

• Use cables with an adequate degree of insulation.



The electric system must conform to the prescriptions in the chapter entitled "Warnings for the installer". The 230 Vac power cable must be laid and connected by a qualified installation technician. Lay the cables in the appropriate pipes and do not allow loose cables to come into contact with moving parts of the automated system and the gate.



### 4. WARNINGS FOR THE INSTALLER

**ATTENTION!** To ensure the safety of people, it is important that you read all the following instructions. Incorrect installation or incorrect use of the product could cause serious harm to people.

### Carefully read the instructions before beginning to install the product.

- 1. Do not leave packing materials (plastic, polystyrene, etc.) within reach of children as such materials are potential sources of danger.
- 2. Store these instructions for future reference.
- 3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger.
- 4. DOORHAN declines all liability caused by improper use or use other than that for which the automated system was intended.
- 5. Do not install the equipment in an explosive atmosphere: the presence of inflammable gas or fumes is a serious danger to safety.
- 6. The mechanical parts must conform to the provisions of Standards EN 12604 and EN 12605. For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
- 7. DOORHAN is not responsible for failure to observe Good Technique in the construction of the closing elements to be motorised, or for any deformation that may occur during use.
- 8. The installation must conform to Standards EN 12453 and EN 12445. For non-EU countries, to obtain an adequate level of safety, the Standards mentioned above must be observed, in addition to national legal regulations.
- 9. Before attempting any job on the system, cut out electrical power.
- 10. The mains power supply of the automated system must be fitted with an all pole switch with contact opening distance of 3mm or greater. Use of a 6A thermal breaker with all-pole circuit break is recommended.
- 11. Make sure that a differential switch with threshold of 0.03 A is fitted upstream of the system.
- 12. Make sure that the earthing system is perfectly constructed, and connect metal parts of the means of the closure to it.
- 13. The safety devices (EN 12978 standard) protect any danger areas against mechanical movement Risks, such as crushing, dragging, and shearing.
- 14. Use of at least one indicator-light (e.g. LAMP) is recommended for every system, as well as a warning sign adequately secured to the frame structure.
- 15. DOORHAN declines all liability as concerns safety and efficient operation of the automated system, if system components not produced by DOORHAN are used.
- 16. For maintenance, strictly use original parts by DOORHAN.
- 17. Do not in any way modify the components of the automated system.
- 18. The installer shall supply all information concerning manual operation of the system in case of an emergency, and shall hand over to the user the warnings handbook supplied with the product.
- 19. Do not allow children or adults to stay near the product while it is operating.
- 20. Keep remote controls or other pulse generators away from children, to prevent the automated system from being activated involuntarily.
- 21. Transit through the leaves is allowed only when the gate is fully open.
- 22. The user must not attempt any kind of repair or direct action whatever and contact qualified personnel only.
- 23. Maintenance: check at least every 6 months the efficiency of the system, particularly the efficiency of the safety devices (including, where foreseen, the operator thrust force) and of the release devices.
- 24. Anything not expressly specified in these instructions is not permitted.

### **5. FUNCTIONS**

These instructions apply to the following models: Operators SLIDING

The SLIDING AUTOMATION SYSTEM for Sliding gates comprises electromechanical operator which drive the gate by means of tooth gear-rack. The system locks mechanically; therefore no electric lock is required.

To obtain anti-crushing protection, you have to use electronic control units with a torque control electronic device. The SLIDING automation was designed and manufactured to control access of vehicles. Avoid any other use whatever.

### TECHNICAL SPECIFICATIONS

### **6. TECHNICAL SPECIFICATIONS**

The table 1. Main technical parameters Sliding-1300(2100)

Model	SLIDING-1300	SLIDING-2100	
Power supply	220		
Absorbed power (W)	550 750		
Reduction ratio	1:32		
Rack	M4x12,566 mm		
Type of pinion	Z16		
Max. linear force (N )	900	1350	
Max. output torque (N•m )	27,5	43	
Termo protection (°C)	125		
Use frequency, (%)	70		
Environment temperature (oC)	-40+60		
Protection class	IP44		
Max gate weight (Kg)	1300 2100		
Gate speed (m/min)	10,1		
Control board	PCB-SL		
Type of limit switch	Magnetic		
Absorbed current (A)	1,5	3,5	
Capacitor (µF)	22 32		

### 7. DIMENSIONS



All sections are specified for a copper multicore wire. At use of an aluminium wire its section is necessary for increasing. The section of a wire also depends on remoteness from the power supply.



- 4. Signal lamp
- 5. External resever

### 8. COMPONENTS SET

N⁰	Component	Quantity
1	Operator SLIDING-1300 (2100) (oil bath)	1 pc
2	Limit switch	1 pair
3	The assembly basis for concreting	2 pc
4	Fixing package	2 pc
5	Release key	1 pc
6	Key switch	1 pc
7	Rack (1m)	1 pc
8	Photocell	1pair
9	Signal lamp	1 pc
10	Receiver 433 Mhz	1 pc

### ASSEMBLY

### 9. ASSEMBLY

### Preliminary checks

For safe and effective work of a drive observe following conditions:

- 1. The design of a gate should provide installation of automatics.
- 2. The ground should be strong enough and stable for installation of the assembly basis of a drive.
- 3. On a place of a foundation ditch there should not be pipes or electric cables.
- 4. If the engine is not protected from passing transport, establish corresponding means of protection against casual impact. Be convinced of an opportunity of effective grounding a drive.





### **10. INSTALLATION**

- To ensure you work in safe conditions, we advise you to install the operator while keeping the door fully closed.
- Use all the specified anchorage points.
  - The fastening systems must be suitable for the type of support and sufficiently tough.
  - · Protect your hands and face adequately while drilling the holes.
  - Read this chapter to the full before you begin installing.
- 1. Establish an operator on the basis of and, moving it, establish necessary distance between operator pinion and a gate. Fix an operator.
- 2. Uncouple an operator.
- 3. Pass protective pipes for a cable through apertures in the basis.
- 4. Establish a rack strictly horizontally. (see corresponding section).
- 5. Establish a demanded backlash between rack and operator pinion (~2 mm). Operator pinion should be linked with rack on all width.
- 6. Moved the gate and be convinced, that rack does not press on operator pinion and it is not displaced. Fix the others of section rack.
- 7. Open a gate and establish the limit switch on opening (see corresponding section).
- 8. Close a gate and establish the limit switch on closing (see corresponding section).
- 9. Couple an operator.
- 10. Adjust the block of management (see corresponding section).
- 11. Make trial start-up and be convinced of normal functioning a drive.

### Rack Installation on the metal gate

- 1. Manually move a shutter in one of extreme positions.
- 2. Put the first part rack on operator pinion and establish the plug between rack and a gate so that they coincided with the top part of a groove.
- 3. Plan a point of drilling on a gate. Drill an aperture 6,5 mm and cut a groove by means of tap M8. Twirl a bolt.
- 4. Manually move a shutter, check that rack remained on operator pinion , and repeat operation 3.
- 5. Installed one more rack element closely to previous. Using free rack, to level these two elements. Move a gate manually and execute all operations the same as and for the first element. Repeat until a gate completely will be blocked by rack.

#### Notes to installation rack:

- 1. Be convinced, that during movement of a gate all rack elements do not leave from operator pinion.
- 2. Do not weld rack on plugs or to each other.
- 3. To provide correct gearing rack with operator pinion, lower an operator on ~2 mm.
- 4. Check up, that a gate reached mechanical emphasises and that during movement of a gate was not any friction.
- 5. Do not grease neither rack, nor operator pinion.



### RACK INSTALLATION ON THE DOORHAN GATE

### **Rack Installation on the DoorHan gate**

- 1. Installed C-profile (3) in door leaf brackets (4) and fixed it by self-tepping screw.
- 2. Installed bolt with plate (1) into C-profile.
- 3. In top of C-profile installed fixing element (5)so that the bolt (1) was in the hole of fixing element.
- 4. Twist plug (2) on a bolt, but do not pull it. The plug (2) should press the fixing element (5) to C-profile (3).
- 5. In front of the hole in the rack installed element that we made in 4 operation.
- 6. Repeat (2-5) operations for other fixing elements. Their quantity should coincide with total holes quantity in the rack.
- 7. Fix rack on fixing elements with bolts (6).
- 8. Using free rack, level teeth all section elements.
- 9. Pull all fixing elements.
- 10. Move the gate manually and be convinced, that during movement all rack elements do not leave from operator pinion.
- 11. Do not weld rack to plugs or to each other.
- 12. To provide correct gearing rack with operator pinion, establish distance between operator pinion and rack~2 mm.
- 13. Check up, that a gate reached mechanical stops and that during gate movement there was not any frictions.
- 14. Do not grease neither rack, nor operator pinion.



### 11. Adjustment the limit switch

An Operator SLIDING-1300 (2100) is equipped magnetic contacts which react on moving of the magnet installed on rack, also a command on a stop of gate.

Installed trailer magnets in the following sequence:

- 1. Unblock a drive (look "Emergency manual release lever").
- 2. Manually move gate to open position, having left 2-5 sm to a mechanical stops.

3.Move a magnet of opening limit switch along rack in a direction of opening of gate to that time while limit switch unit will not pass in mode OFF. To know it you should look to led on the control board, (look «Check of parameters of work of system»). Move a magnet in the same direction still approximately on 20-30 mm also fix it on rack.

4. Move gate to the closed position, having left 2-5 sm to a mechanical stops.

5.Move a magnet of closing limit switch along rack in a direction of closing of gate to that time while limit switch unit will not pass in mode OFF. To know it you should look to led on the control board, (look «Check of parametres of work of system»). Move a magnet in the same direction still approximately on 20-30 mm also fix it on rack.

6. Move gate to average position and block an operator (look. ""Emergency manual release lever").

7.Limit switches devide on: the closing limit switch on the long support, the switch opening limit switch on a short support. If you change limit switches the normal work of a drive is not possible.

8.To provide normal work of system, leave 2 sm from gate to a mechanical stops in extreme opened and extreme closed positions of gate.

9.Do some full work cycles and check up limit switches installation. When operator stoped on limit switch the right led should switch off. Sw1 -closing limit switch. Sw2 - opening limit switch.

10. The distance from the limit switch to a magnet limit switch should be no more than 5 mm.

### 12. Emergency manual release lever.

If it is necessary to open the gate manually in disconnected electricity or malfunctions of an operator, use emergency manual release lever:

1. Insert a key into the lock. (Fig. 1)

2. Turn a key to clockwise.

3. Without taking out a key, pull the emergency manual release lever to itself (Fig. 2).

4. Turn a key counter-clockwise and take out a key from the lock.

5.Move gate manually.

### Returning to normal system action.

To prevent an involuntary push at activation of gate, disconnect electricity before an operator blocking.

- 1. Insert a key into the lock.
- 2. Turn a key counter-clockwise.
- 3. Without taking out a key close the emergency manual release lever from itself against the stop.
- 4. Turn a key to clockwise and take out a key from the lock.
- 5. Move gate manually until the operator will not be blocked

6.Do not grease neither rack, nor operator pinion.







**Closing limit swith** 









### **13.Control Board**

### **Technical specifications**

Power supply	230 V~ ( +6% -10%) - 50 Hz	
Absorbed power	10 W	
Motor max. load	800 W	
Accessories max. load	0,5 A	
Electric lock max. load	15 VA	
Operating ambient temperature	-20 °C +55 °C	
Protection fuses 2 (see fig. 1)		
Function logics Automatic / Semi-automatic / "Stepped" Safety device / Semi-automatic B/ Dead-man C / "Stepped"		
Opening/closing time	Programmable (from 0 to 120 s)	
Pause time 0, 10, 20, 30, 60, 120 s		
Closing leaf delay	Closing leaf delay 0, 5, 10, 20 s	
Opening leaf delay	2 s (Can be disabled with the dip-switch)	
Thrust force	hrust force Dip-switch adjustable on 8 levels for each motor	
Terminal board inputs	Open / Open free leaf / Stop / Opening safety devices / Closing safety devices / Power supply + Earth	
Terminal board outputs	Flashing lamp - Motors - 24 Vdc accessories power supply - 24 Vdc	

### Control board elements description

TF1	Power supply transformer	
Radio	Radio receiver speed connector	
Sw1	Dip-switches	
F1	Fuse 2,5A	
F2	Fuse 0,5 A	
TMR	Working time adjustment	
ACL	Autoclose pause adjustment	
FRC	Force adjustment	
Photocells	1 pair of photocells	
Signal lamp	Lamp	

### **Control board connectors description**

~220 (N, L, PE)	Power supply	
Motor (N, L1, L2)	Motor connection	
Lamp	Signal Lamp connection	
"_"	Negative for acessories (24 V), 600 mA	
"+24V"	Positive for acessories (24 V), 600 mA	
Sw Op	Open limit switch (NC)	
Sw Cl	Close limit switch (NC)	
EMRG	Emergency stop (NC)	
Ph Op	Open photocells (NC)	
Ph Cl	Close photocells (NC)	
Ped	Pedestrian opening impulse contact (Dip2 is on) (NO)	
Start	Full opening impulse contact (NO)	

### Control board led's description

Led	purpose	on	off
PWR	Power	Power supplied	not supplied
A	Overloading of maximum current	Overload current	ok current
В	Overloading of fixed current	Overload current	ok current
ST	START impulse	activated	inactive
PED	PED impulse	activated	inactive
Ph1	Close photocells	disengaged	engaged
Ph2	Open photocells	disengaged	engaged
STOP	STOP command	inactive	activated
Sw1	Close limit switch	disengaged	engaged
Sw2	Open limit switch	disengaged	engaged

The condition of light-emitting diodes at the collars which are on the average position at rest, is allocated by a bold type.

#### The description of sockets of electric connections.

~220 (N, L, PE) the socket on the block serves for connection to the block of pressure of a food

PE: earth connection N: a Food (neutral) L: a Food (phase) MOTOR (N, L1, L2) the socket on the block serves for connection to the electric motor block

LAMP the socket on the block serves for connection of an alarm lamp 230V, max. 40WT.

Works at any movement of a cloth of gate. The lamp blinks with the period = 0.5-1 seconds

Further contacts of the low-voltage socket intended for connection of accessories are described.

**1. START** – a command "Complete opening" (N.O.)

Short circuit of contacts of the system connected to this plug, leads to operation of the block of management on complete opening and-or closing of gate (the exact logic of work depends on switch Dip1 position).

Dip1 - off. Commands in a cycle mode - Open-Stop-Close-Stop are produced.

Dip1 - on. Commands in a mode - Open-Close-Stop-Open (at the opening the stop is not provided) are produced

After the first inclusion of an electricity the first command Start leads to movement of gate on opening.

If from the first command Start of a collar have started to move on closing, it is necessary to change position of switch Dip3 answering for an opening direction.

Command Start is perceived by the management block through the period of time equal ~1-2 sec after its previous receipt on an input of the block.

For connection of several systems, it is necessary normally opened NO. Contacts of these systems to connect in parallel.

### 2. Ped - command Pedestrian (1 meter opening) (N.O.)

Dip2 - off, Command Ped leads to opening of gate approximately on 1 m. Repeated command Ped leads to closing of gate. If after a command Ped command Start follows, the management block produces a command on complete opening of gate. Command Ped at Dip2-off is fulfilled

Only in the closed position of gate, and as at its repeated giving on an input after opening on 1M. Dip2 - on. Separate management of a drive is realised, i.e. Command Start opens gate, Ped - closes.

For connection of several systems, it is necessary normally opened NO Contacts of these systems to connect in parallel.

3. SW OP / SW CL - signals from trailer switches of extreme positions of a cloth of gate.

Operation (contact disconnection) концевика SW OP / SW CL means that the cloth of gate is in extreme opened / the closed

Position and the further movement in the same direction is forbidden.

4. Photo CI - contacts of connection of safety controls on closing (N.C.). Appointment of the given connections - protection of a cloth of gate at the close. Operation of systems leads to immediate reversive movement of a cloth of gate before complete opening. Operation of the systems connected to these plugs, does not render any influence on work during opening of gate.

If gate are opened also the gauges connected to given plugs, have worked, it will prevent movement of gate on closing.

For connection of several systems with H.3. Contacts, it is necessary to connect contacts of these systems consistently.

The note: If no systems are connected to the given plugs, it is necessary to establish a crosspiece between

Contact plugs "Ph CL" and "-" (fig. see).

5. Photo Op - contacts of connection of safety controls on opening (N.C.). Appointment of the given connections - protection of a cloth of gate at opening. Operation of systems leads to an immediate stop of movement. Operation of the systems connected to these plugs, does not render any influence on work in a lock-up of gate. If gate are closed also the gauges connected to given plugs, have worked, it will prevent movement of gate on opening. For connection of several systems with H.3. Contacts,

It is necessary to connect contacts of these systems consistently.

The note: If no systems are connected to the given plugs, it is necessary to establish a crosspiece between the contact Plugs "Ph Op" and "-" (fig. see).

6. EMRG - contact for connection of systems of an emergency stop (N.C.). Appointment of the given connections - protection of a cloth of gate. At the close and opening. Any logic of work of the block of management on a signal from these systems in the course of opening and closing of gate provides an immediate stop of movement of gate. If gate are at rest and the gauges connected to given plugs, have worked, it will prevent any movement of gate. For connection of several systems with H.3. Contacts, it is necessary to connect contacts of these systems consistently.

#### The note: If no systems are connected to the given plugs, it is necessary to establish a crosspiece between the contact Plugs EMRG (the Fig. see).

24V DC - plugs of an exit from the transformer of a food 24 In a direct current, макс. Load 600 мА.

ATTENTION: At change of position of DIP-switches or mechanical regulators it is necessary to switch off and again to include pressure of a food of a drive. Otherwise change of options will not occur.

#### **Description Dip - switches**

Dip1 - The mode of operation. At switched off Dip1 during opening of gate command Start is not perceived (On/Off)

Dip2 - Separate management. At included Dip2 separate management at which the system connected to plug Start sends a command on opening, and the system connected to plug Ped - a command on closing of gate (On/Off) is realised.

Dip3 - A direction of opening of a drive. Included Dip3 corresponds to position of a drive to the right of an aperture, switched off Dip3 - a drive to the left of an aperture.

Dip4 - Reserve. It is not used.

### PROGRAMMING

#### **Description of mechanical regulators**

TMR - adjustment of an operating time of the engine. It is used in case of work of a drive without trailer switches. The operating time is regulated in the range from 0 to 100 seconds Extreme right position of an arrow corresponds to the maximum operating time.

ACL - adjustment of time of a pause before automatic closing of gate. Pause time is regulated in the range from 0 to 70 seconds In extreme left position of a regulator function of automatic closing switched off.

FRC - adjustment of traction effort of a drive (installation of the maximum current of consumption). In extreme right position of a regulator the effort of a drive has a peak figure, and the drive works at full capacity it (is not recommended).

#### Automatic closing

Automatic closing of a drive is adjusted by means of regulator ACL. For this purpose he is necessary for establishing in any position, Distinct from the extreme left. At regulator turn to the right pause time before automatic closing increases.

### Check of connection of the engine

Check up, that the engine has been connected, as It is shown in drawing.



Attention: Before the beginning of work with a management payment always disconnect a food. Always lay power cables Separately from the alarm. For reduction of the induced noise use a cable with shielded braid. Wires in cables should be protected from contact to any rough and sharp details.

### 14. Electrical connections

**IMPORTANT:** Before attempting any work on the board (connections, maintenance), always cut off power.



### 15. PROGRAMMING Adjustment of Dip-switches

At change of position of Dip-switches or mechanical regulators It is necessary to switch off and again to include the drive power supply. Otherwise change of options will not occur.



### **Connection of DHRE-2 reciever**

External receiver DHRE-2 is meant for receiving radio remote control signal with 433 MHz frequency, decoding it and control signal actuating.

#### Installation

1. Connect your receiver to a power supply 12/24 V, AC/DC by using input terminals +24V and GND.

2. Connect the operator control board N.O. operating inputs to receiver output terminals CH1 or CH2. Memory clearing

3. Before encoding you can clear the receiver memory from the previously stored codes (it is recommended at the first setting). To perform it, when the power is switched on, press CODE button for the 10 seconds (CODE1 (or SW1) - if you are using CH1, CODE2 (or SW2) - if you are using CH2). LED1 will be flashing 10 seconds then switch off for 2 seconds and flash twice to confirm that the memory is clear.

#### Encoding

4. For encoding a transmitter code to the receiver press CODE button for 3 seconds on the receiver board (CODE2 (SW2) for the operator connected to CH1 and CODE1 (SW1) for the operator connected to CH2) LED1 will light. After that press a button on the transmitter twice.

Attention! After this operation only 1 button of the transmitter is stored in the receiver memory. 5. For encoding another transmitters repeat the procedure.

Connection

For connection a receiver to a control board it is needed to connect the output control terminals (CH1 or CH2) and the power supply terminals (+24V, GND) to a control board.

### **17. REPAIRS**

For repairs, contact DOORHAN's authorized Repair Centers

### **18. MAINTENANCE**

Sliding type opener is an environmentally friendly product generally requiring a minimum of maintenance in normal use.

After a period of time in use, regularly check whether the door is balanced when opening/closing, whether the spring has enough force to raise the door.

In the case of power failure the operator can search for the program memory. When the power is restored, press the button of the transmitter once, the door will rise.

Run a functional check of the system at least every 6 months, with special attention to the efficiency of the safety and release devices.

The manufacturer reserves the right to make alterations and modifications of the construction without preliminary notice.

The present directions describes installation and adjustment operations of the road gate BARRIER-5000.

Following the recommendations on operation, maintenance of the road gate as well as installation operation sequence of the operator and the door given in the Directions will ensure long life of the equipment and reduce the possibility of accidents during installation and operation of the door.

Observe accident prevention rules while installation and operation.

In case of loosing of the present Directions you may request for its duplicate to the following address: 36 Moghaiskoye shosse, Moscow 121354 or e-mail: info@doorhan.ru.

The manufacturer (DoorHan) does not handle direct control of installation, maintenance and operation of the doors and the automatics and shall not be responsible for safety of installation, maintenance and operation of the doors, road gates and the automatics.

Contents of the directions shall not be basis for any claim.

## 16. Radio controls encoding

**Recording of remote controllers** 

Setting of control with radio channel of remote controllers DoorHan:

1. Before programming you can clean the memory of the receiver, erasing all former codes. (it is recommended by first setting) Turn on the power supply and hold down record key for 10 sec. The indicator «a» will be blinking for 10 sec, then it will become dim and in 2 sec. it will blink twice to confirm erasing of the former codes.

2. In order to record the code of the remote controller hold down for 3 sec the record key. The read indicator «a»should blink. Release the key. While the red indicator is blinking, hold down for 10 sec the selected key on the remote controller (the key, that you want to control the unit). Hold down the key on the trinket until the red indicator «a» lights for 2sec and then goes out, to confirm that the remote controller code is stored in the memory of the receiver.

3. To make setting of several Для настройки нескольких пультов повторите запись кода для других пультов. You can make setting of 65 remote control units.

If the receiver not receives the command in 10 sec, it exits the waiting mode automatically. After the control unit is disconnected from the mains, all programmed data are stored.





The company DoorHan thanks you for buying our products. We hope you will be satisfied with the quality of our product. If you need any further information about purchasing, distribution and maintenance, contact our regional agents or refer to our central office to the following address:

> Russia, 143002, Moscovskaya oblast, Odintsovskiy r-n, s. Akulovo, ul.Novaya, 120. Tel: +7(495)933-2400, 981-1133 E-mail: Info@doorhan.com www.doorhan.com