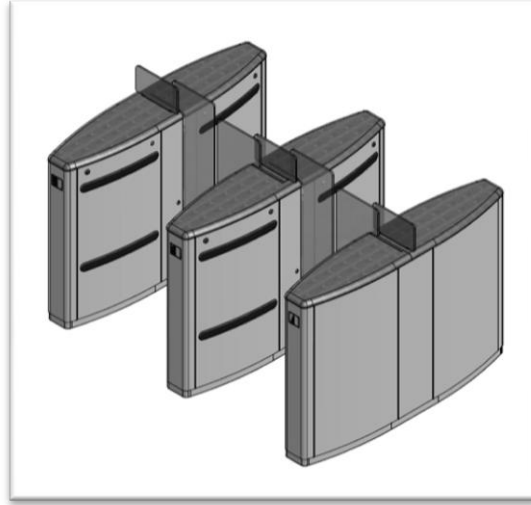




**TURNSTILES & ACCESS CONTROL SYSTEMS CO.**



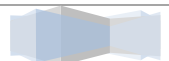
**T300 HG120  
MOTORIZED TURNSTILE  
INSTALLATION AND USER MANUAL**

**VERSION V2.00**

**OCAK 2012– ANKARA**

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## BEFORE YOU START

*Thank you for purchasing T300 HG120 Motorized Turnstile and we advise you to read this manual carefully in order to use the machine longer time without problem. Please keep the user manual to benefit when need arises.*

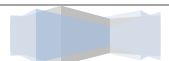
### 1.HIDDENGATE SAFETY INSTRUCTIONS

- Before you install and use the hiddengate, please read all the safety and maintenance instructions carefully. Turnikenizi kurmadan ve kullanmadan önce tüm güvenlik ve bakım önerilerini dikkatle okumanızı tavsiye ederiz.
1. You should read the user manual before installing the hiddengate.
  2. For safety reasons, don't open the hiddengate yourself. Maintenance must be done only by the authorized service or the seller agent. The modifications made by user might pose danger for the machine and people.
  3. Deformed hiddengates should not be operated and authorized service must be informed immediately.
  4. Specified power and voltage values in the technical specifications part must be adapted.
  5. Before you energize the hiddengate after any deformation or maintenance, check the accuracy of power supply and control card connections.
  6. Use the parts and accessories approved by the manufacturer company.
  7. In case of any problem, cut off the electricity connections of turnstile and inform the authorized service.
  8. Cut off the electricity connections while doing maintenance and cleaning. Otherwise, it may pose danger for the attending person.
  9. Use moist duster while cleaning the hiddengate.
  10. Dangerous materials for hiddengate should not be used with aim of cleanliness.
  11. Keep hiddengate away from extremely hot and febrile environments. Extreme heat may cause failure in the system. Do not operate the hiddengate for long time under direct sun light.
  12. Hiddengate should not be used in high magnetic fields.
  13. Do not expose the hiddengate extreme water. Do not operate it under direct rain.

### 2.HIDDENGATE USAGE INSTRUCTIONS

1. Hiddengate is designed for only one person passage each time. More than one person should not try to pass the lane at the same time.
2. In the event of the system not working thoroughly, actions posing danger to the system must be avoided.
3. In the event of any failure, in order to prevent more harm to the hiddengate, ungear the system or do not use it..
4. As the hiddengate will not detect any object not higher than itself, it could be closed to the user in this case.
5. Do not wait for long time on the passage lanes.
6. Avoid from violent passages through hiddengate, do not turn to sides while passing.
7. For unaccompanied children, animals and objects like street toy cars, there may come the buzzer voice. Only with accompany of adults will the hiddengate be opened.
8. All operations on the equipments must be done by technical personnel. Any failures caused by unauthorized people or non-technical personnel will be out of warranty coverage of manufacturer.

**Manufacturer does not accept any responsibility for the failures or woundings occurred because of not confirming to the above specified Safety and Usage Instructions.**



### 3.T300 HG120 TECHNICAL SPECIFICATIONS

<b><u>Dimensions:</u></b>	Width	350mm
	Lenght	1450mm
	Height	1187mm
<b><u>System:</u></b>	Motorized	
<b><u>Direction:</u></b>	Bidirectional , entry and exit from both sides.	
<b><u>Material:</u></b>	<b>Top:</b>	Special Covered Wooden (Standard) Stainless Steel Top (Optional) Special Patterned Glass Top (Optional)

**Body :** AISI 304 (EN 1.4301) Stainless Steel  
AISI316 (EN 1.4401) (Optional)  
AISI316L (EN 1.4404) (Optional)

**Chassis :**3mm HRP (ST37) Galvanized & PowderCoated

**Wings :**15 mm Plexyglass

**Emergency:** In case of emergency ( earthquake,fire etc)  
Wings are opened to sides by hand. When electricity is on,hiddengate will start operating itself again.

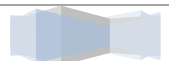
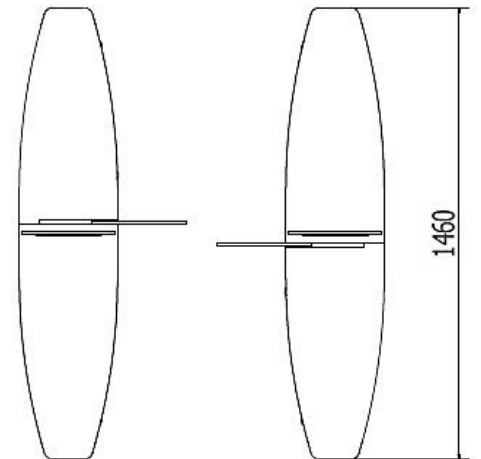
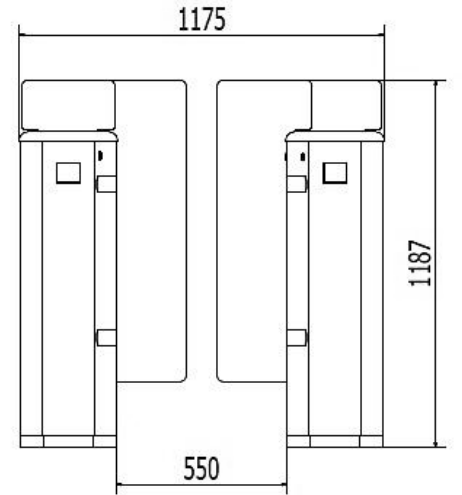
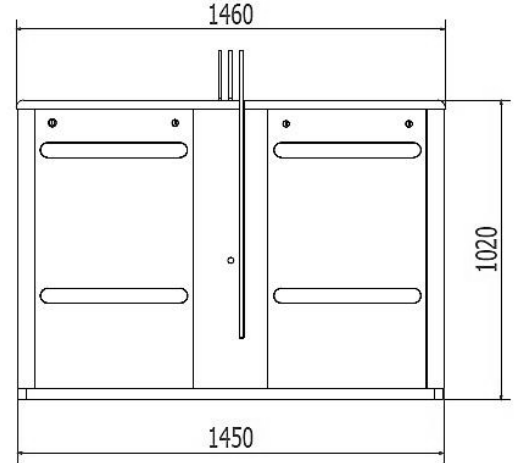
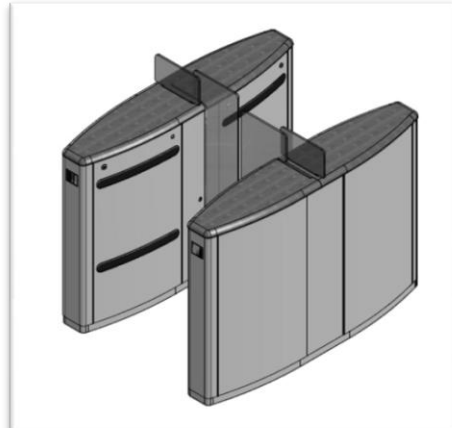
**Operating Voltage:** 24V DC

**Power Consumption:** 115/230 VoltsAC 50/60 Hz, 300 VA

**Passage Times:**(15-20 person)/min

**Weight:** 90 Kg

**IP Protection:**IP 42



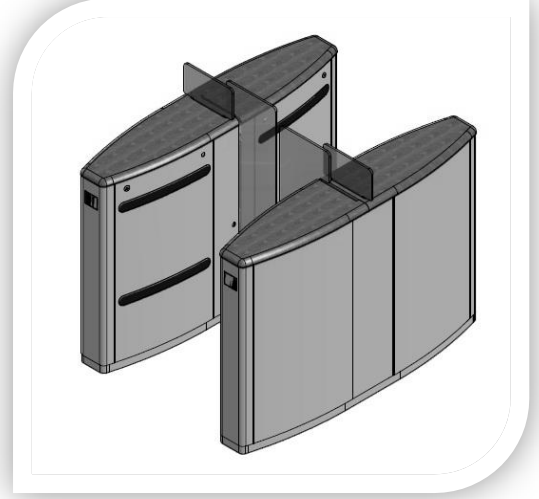
## 4.T300 HG120 FEATURES

### 4.1 LANE ALTERNATIVES

For the hiddengate type of turnstiles, you should arrange the lanes shown as below in order for people to pass.

#### SINGLE LANE:

Two single hiddengate(1 mechanism flap turnstile) creates 1 bidirectional lane. Control panel could be entegrated in either one.



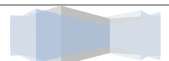
#### DOUBLE LANE:

2 single and 1 double hiddengate creates two bidirectional lanes. There will be two control panels. You could either entegrate control panels to 2 single units, or both control panels to 1 double unit..

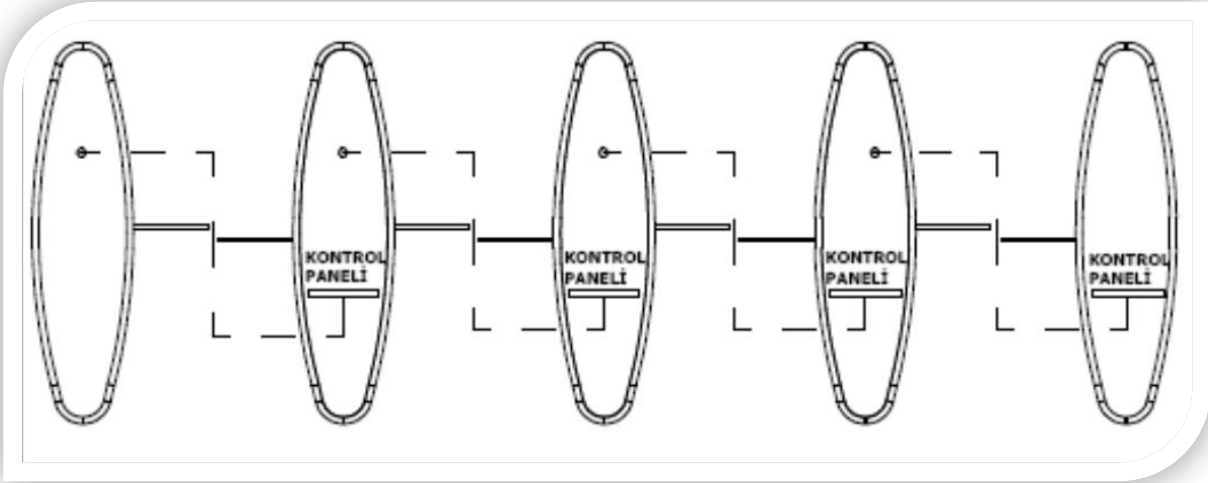


#### MULTIPLE LANES:

On the left picture,4 lanes are shown created with 2 single and 3 double units.



### MULTIPLE LANES:

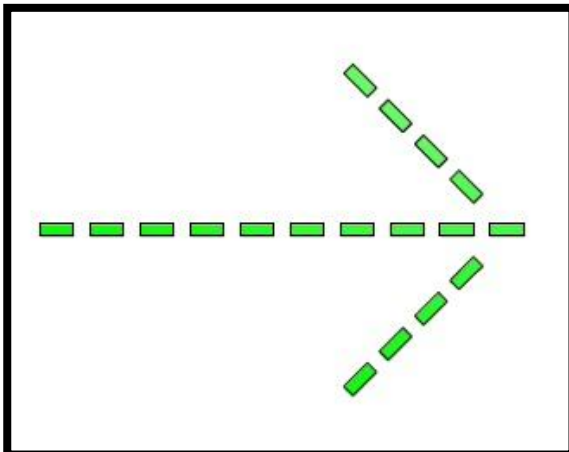
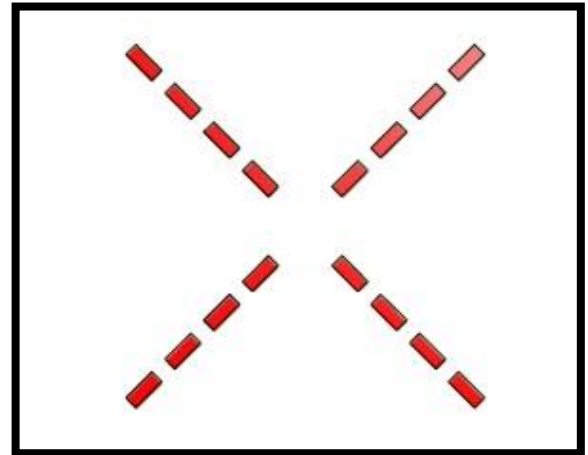


Control panel locations are shown in above picture. You can increase lane quantity like that. (single+double+double+...+single) During installation, give the electricity to the unit with control panel. Dashed lines between two units indicates the cables for connection.

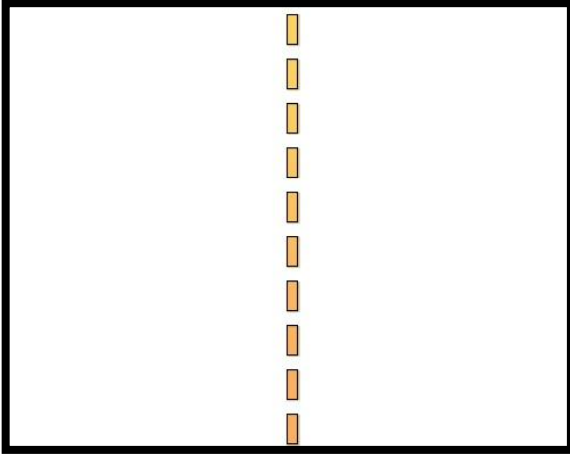
### 4.2 SYMBOLS

Symbols indicates the passage permission to the user. There are fixed led symbols for entry and exit situations showing passage direction on each unit.

- **Red Cross Light:** Passage is not permitted until successful authorization.



- **Green Arrow Light:** Successfully authorized and permitted to passage.



- **Orange Dashed-Line Light:**  
Everything is normal, awaiting for authorization for passage.

### 4.3 WORKING PRINCIPLE

Main board which is managing the hiddengate receives commend for passage and if all the conditions are fulfilled, the wings are opened. Passings can be both one by one and ensuingly. If more than one authorizations are given, those will be added to the memory and the same quantity of passages will be allowed. For this, 30 people can pass ensuingly.

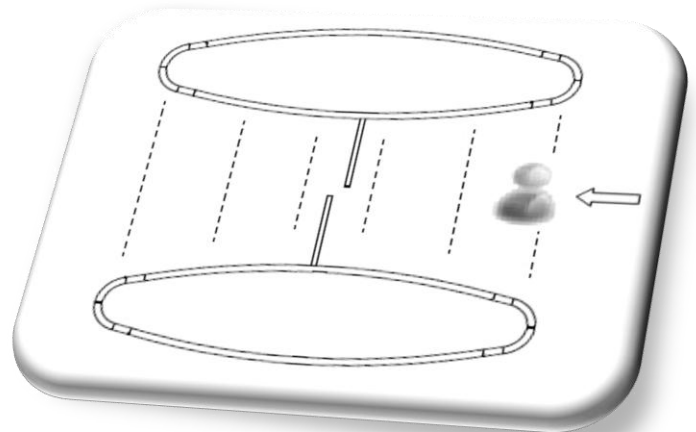
If the hiddengate detects no body even after authorization is given, a warning buzzer will be on after 15 seconds and 5 more seconds will be given. After this 5 seconds, the authorization will be cancelled.

### 4.4 UNAUTHORIZED ENTRY

Unauthorized entries are not permitted for passage. During unauthorized passages, the warning buzzer will be on and the symbols will be red cross. The wings keep closed. Upon the cause of element for unauthorized passage is disappeared, the hiddengate will turn to its standard mode.

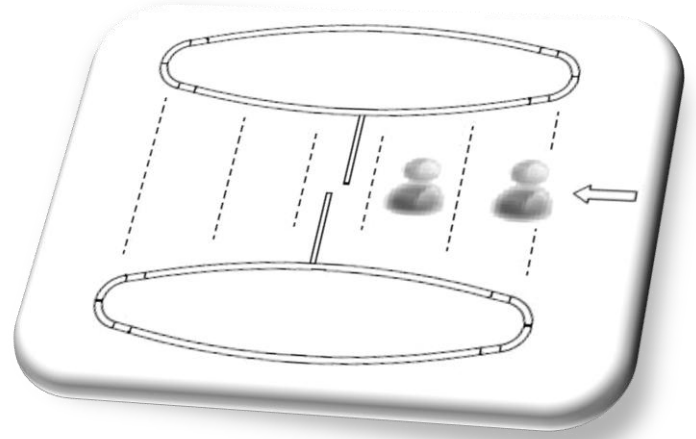
#### **“WAITING” UN-PERMITTED ENTRY**

When the hiddengate is on normal waiting mode, if anyone get into passage area without authority, the sensors will detect and in 3 seconds the warning buzzer will be on.



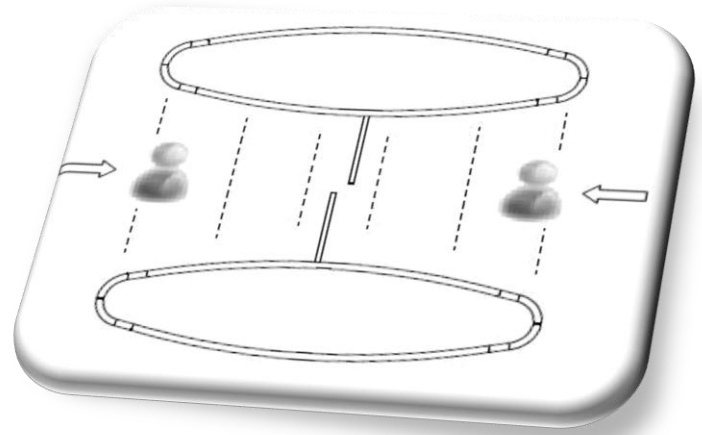
### **“Un-Permitted Entry Following Authorized Passage ( Optional)”**

While the authorized person is passing through, another person follows without permission and this is unauthorized passage. The passage could be done but the warning buzzer will be on.



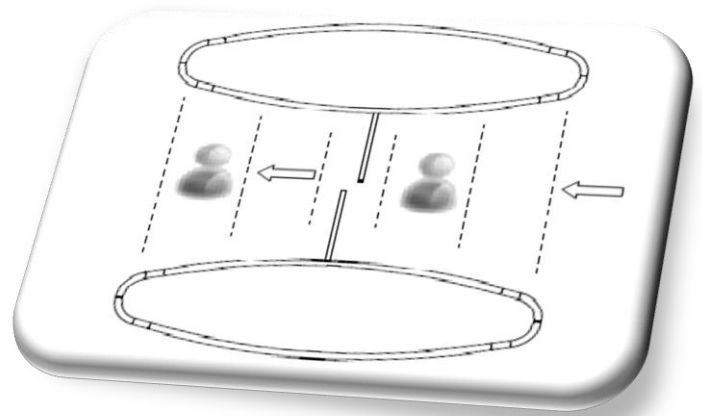
### **“REVERSE DIRECTION” UNPERMITTED ENTRY**

When authorized person is on the right direction and unauthorized another person is on the reverse way, this causes unpermitted entry. Wings will be closed to both ways in this situation and warning buzzer will be on. If unauthorized person leaves the lane, the wings will be opened for authorized one.



### **“STANDING” UNPERMITTED ENTRY**

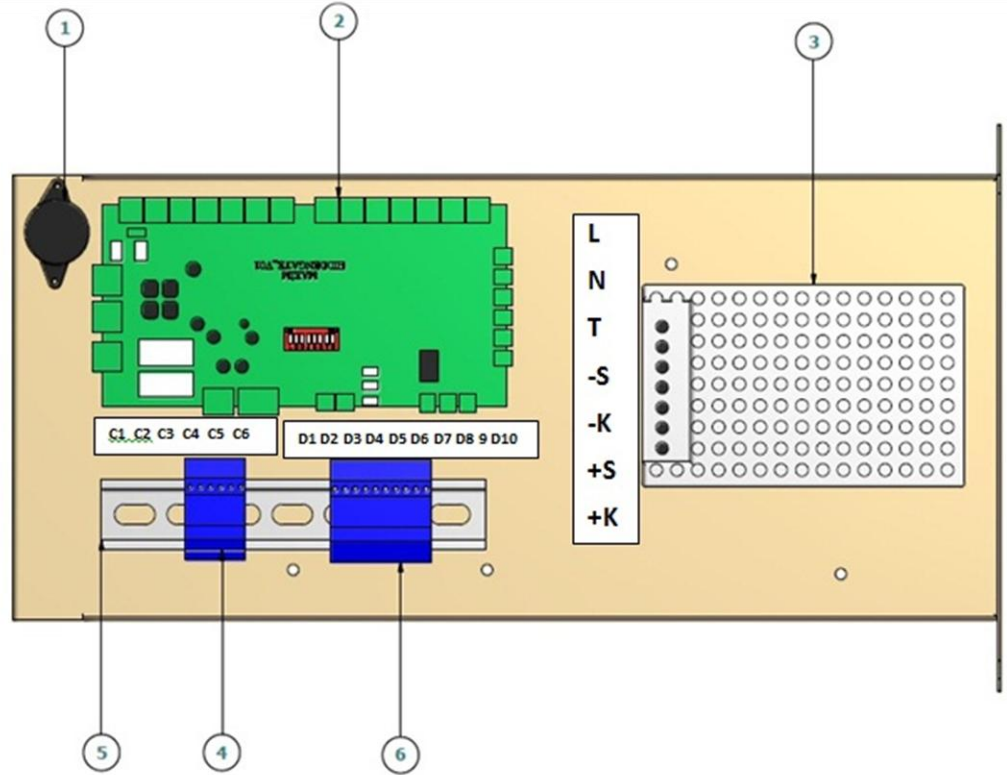
If authorized person stands on the lane while passing, the entry will be unpermitted. After 15 seconds the warning buzzer will be on and in 5 seconds, if the passage is not done, the wings will be closed. Authorization will not be valuable. If the standing is done on the other side of wings, he/she can end the passings. And, if the standing is done between the wings, for safety regulations the wings will not be closed and warning buzzer will be on, in the same way.





## 5. CONTROL PANEL AND CONTROL PANEL PARTS

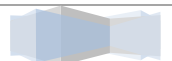
NO	PART NO	EXPLANATION	PIECES
1	B00A0738	BUZZER DASHED 24V (AURAL WARNING)	1
2	A00B2771	MAKİM HIDDENGATE ELECTRONIC CARD V_01	1
3	A00B0598	MEAN WELL NES-100-24 SMPS POWER SUPPLY 24V 4.5A	1
4	A00A9400	SIX MEGA RADAR KLEMENS JOINTER	1
5	C00A1693	V AUTOMAT RAIL (190mm)	1
6	A00B1477	TEN MEGA RADAR KLEMENS JOINTER	1



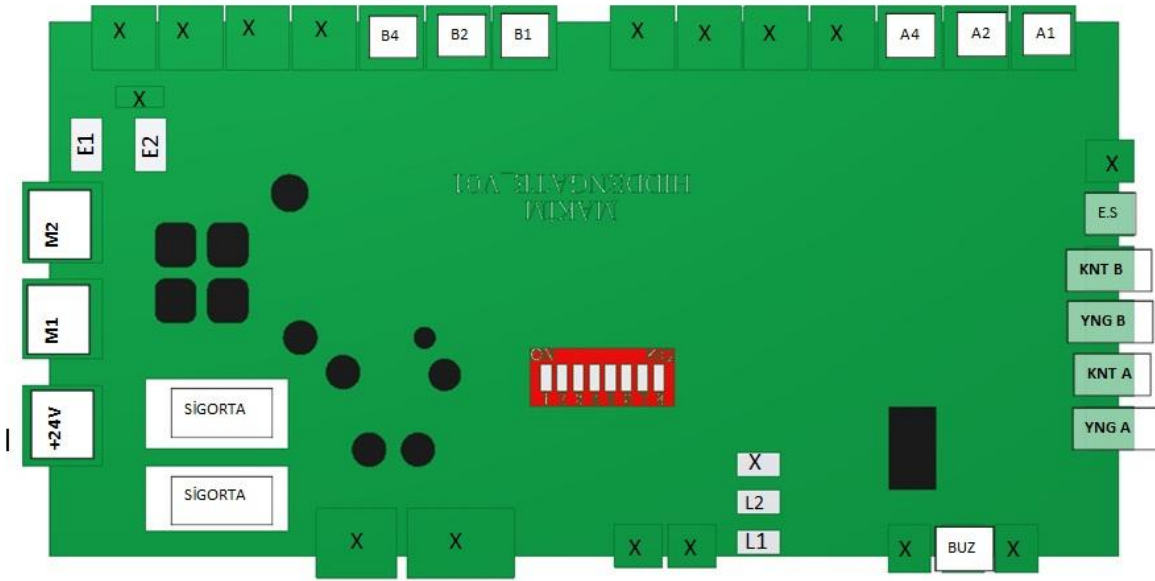
**C1** Led2 Switch Girişi  
**C2** Led2 Switch Girişi  
**C3** Led2 Switch Girişi  
**C4** Led1 Switch Girişi  
**C5** Led1 Switch Girişi  
**C6** Led1 Switch Girişi

**D1** Motor2 Klemens Girişi  
**D2** Motor2 Klemens Girişi  
**D3** Sensör 24 V Girişi  
**D4** Sensör 24 V Girişi  
**D5** Encoder2  
**D6** Encoder2  
**D7** Encoder2  
**D8** Encoder2  
**D9**  
**D10**

**T** Toprak  
**N** Nötr  
**L** Faz  
**K+** +24V  
**S+** +24V  
**K-** -24V  
**S-** -24V



## 5.1 T300 HG120 ELECTRONIC CARD



A1	Sensör1	E.S.	Emniyet Sensörü	E1	Encoder1	YNGA Acil ButonA
A2	Sensör2	KNTB	Kontrol B	E2	Encoder2	YNGB Acil ButonB
A4	Sensör3	KNTA	Kontrol A	M2	Motor2	
B1	Sensör1	BUZ	Ses Çıkışı	M1	Motor1	
B2	Sensör2	L1	Led1	+24V	Güç Girişi	
B4	Sensör3	L2	Led2	X	Kullanım Dışı	

## 5.2 POWER SUPPLY AND SAFETY INSTRUCTION

### 5.2.1-POWER SUPPLY:

Control equipment and electronic control unit on the hiddengate are fed.with 100W/ 24V 4.5A single output ,closed type Power Supply. Power supply is capable of feding existing hardware.

### 5.2.2-POWER SUPPLY SAFETY INSTRUCTIONS

- 1.Never take off the safety cover on the power supply.
- 2.While making any arrangements, take into consideration all the warnings on the safety cover and power supply and fuse rating.
- 3.The label on the power supply shows the edges where the connections will be made. You should abide by the signs on the label while making connections..

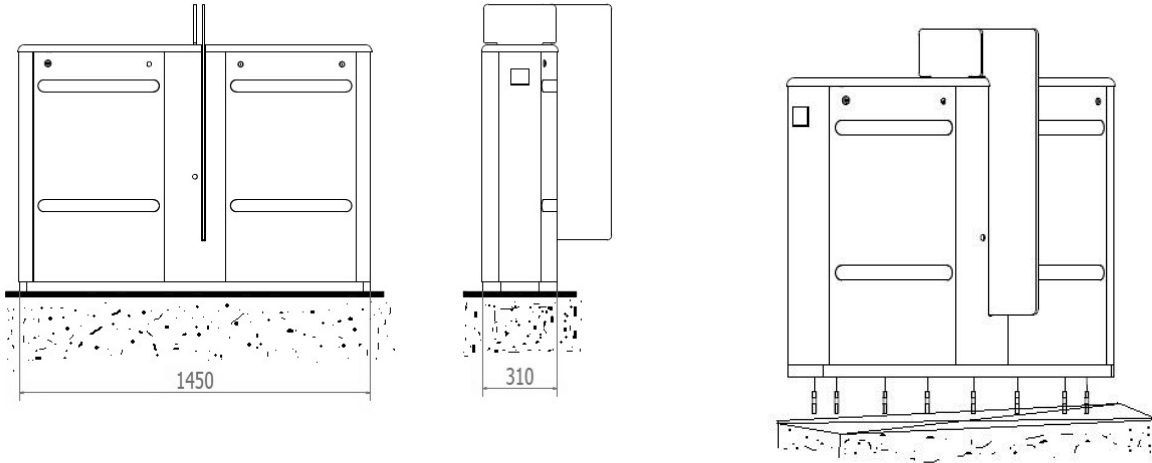
**NOTE: DO NEVER FEED EXTERNAL DEVICES FROM THE CONTROL CARD OR POWER SUPPLY OF THE HIDDENGATE. MANUFACTURER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE FAILURES CAUSED BY THIS.**



## 6.T300 HG120 HIDDENGATE MOUNTING INSTRUCTIONS

### 6.1- MOUNTING

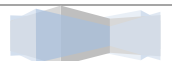
1. Mounting place should be decided as not to prevent the hiddengate working.
2. You should check the smoothness of the floor to be mounted on, and if it is not straight, it must be straightened.
3. Mark the holes to be mounted on the floor. Be careful to locate the units on a line. Otherwise, the hiddengate sensors will not detect each other mutually and this will prevent the units operating.
4. Drill the marked holes with  $\text{Ø}10$  twist bit and clean the dust inside the holes with help of air.(PICTURE 4)
5. Locate the fixing plugs in the holes by joeing. If the floor is not solid, joe the fixing plugs after pouring chemical grout and wait 20 min. for the grout to freze. ( Suggested Chemical Grout is Hilti HIT HY 150)
6. Previously prepared power and data cables are passed through the cable passing points on the hiddengate platform.
7. Hiddengate platform is put on the steel plugs and fixed to the floor with shims and nuts.
8. Below you can see the pictures about mounting of the plug and hiddengate to the floor.



CABLE CONNECTION PASSING POINTS:  
CONNECTION HOLES TO THE FLOOR WITH M12 STEEL DOWEL

### T300 HG120 SINGLE UNIT MATERIAL LIST

M12. STEEL DOWEL	M12SHIM	M10NUT	M10SHIM
8PCS	8PCS	8PCS	8PCS



## 6.2- CARRIAGE INSTRUCTIONS

1. Be careful to carry the hiddengates with the packages prepared by MAKIM.
2. Abide by the carriage instructions written on the packages.
3. Do not put a heavy material on the package. Abide by the stowing instructions.
4. Do not put the packaged hiddengate on a wet floor.
5. Carry the hiddengate on an elevator suitable for its weight.
6. Before you start the mounting, check if any damage occurred while carriage, if the parts for mounting and connections are all ready.

## 7.HIDDENGATE MAINTENANCE INSTRUCTIONS

The maintenance suggestions and times here are only given with aim of general information and example. It is advised for the user to decide the maintenance according to the usage, environment and climate conditions.

Do not use corrosive chemical matters while doing maintenance. While cleaning sensor Windows, use a clean dry fabric and do not make any compress. Outer steel body can be cleaned with a wet fabric once in month.

External connection screws must be checked visually once in every three months. If you detect any relaxation on the screws, contact with the seller agent or manufacturer.

Periodical maintenance of the hiddengates must be done by authorized service personnel. If any need occurs, you can contact the manufacturer and receive information about periodical maintenance.

**Maintenance to be done by authorized service or seller agent:**

PART	TIME	OPERATION
Top and Buttom Bearings of the Wings	4 Months	Oiling
Floor Mounting Screws	6 Months	Control
Mechanism Screws	6 Months	Control
Engine	12 Months	Control
Electronic Card	12 Months	Control+Cleaning
Sensor	12 Months	Control+Cleaning
Cable Connections and Sockets	12 Months	Control



## 8.PROBLEM AND SOLUTION

Problem?	Probable Cause?	How to Solve?
<ul style="list-style-type: none"> <li>• Wings do not work even if the power plug is on.</li> <li>• Leds do not give light.</li> <li>• No movement on the hiddengate.</li> </ul>	1. No power is received.	1. Send power to the hiddengate.
	2. Interior power cable is not on.	2. Check the interior power cable.
	3. Blowing of fuse.	3. Change the blow.
<ul style="list-style-type: none"> <li>• Power is received but wings do not work.</li> </ul>	1. There is a problem preventing wings movement.	1. Wings are checked when they are released. Be careful not to make it touch to plate.
<ul style="list-style-type: none"> <li>• Wings work but no voice is heard.</li> </ul>	1. Buzzer is failed.	1. Change the buzzer.
	2. Buzzer plug is off.	2. Check the buzzer plug.
	3. System is working faulty.	3. Check the system.
<ul style="list-style-type: none"> <li>• Wings stay open.</li> </ul>	1. There may be preventing jamming while closing.	1. Check it by hand.
	2. There may be fault on the program.	2. Check the program.
	3. There may be fault on the sensors.	3. Change the sensors.
<ul style="list-style-type: none"> <li>• Wings do not open although permission is given with green arrow sign.</li> </ul>	1. Sensors may not see eachother.	1. Sensors must be checked as to see eachother well.
<ul style="list-style-type: none"> <li>• Hiddengate does not reset itself after the specified time of passage permission is ended. No passage direction info is seen after the passing is done.</li> </ul>	1. Program may be faulty.	1. Renew the program.
	2. Card may be faulty.	2. Change the card.
<ul style="list-style-type: none"> <li>• Buzzer contiunously gives alarm when the wings are closed.</li> </ul>	1. Sensors do not see eachother.	1. It may be because of dust,clean the plexyglass.
	2. Sensors are faulty.	2. Change the sensors.
<ul style="list-style-type: none"> <li>• Wings stay in half opened position.</li> </ul>	1. Wings have touch with chassis.	1. Check by hand if they work or not.
	2. Jamming in the mechanism.	2. Check the mechanism parts and oil them.



## EC DECLARATION OF CONFORMITY

MAKİM MAKİNA TEKNOLOJİLERİ SAN. VE. TİC. A.Ş.  
 Sincan OSB Erkunt Cad. No:20 Sincan/ANKARA  
 Tel: +90-(312) 267 56 87 Faks: +90-(312) 267 56 99  
 E-mail: info@makim.com.tr-satis@makim.com.tr  
 Web: www.makim.com.tr

We, Makim Makine Teknolojileri San. Ve Tic. A.Ş., declare under our sole responsibility that the product,

<b>Machine Name</b>	Hiddengate
<b>Machine Model</b>	T300 HG120 Motorized Hiddengate Turnstile
<b>Production Tape</b>	2011

to which this declaration relates is in conformity with the following standarts and other normative documents

- **TS EN 1050** safety of machinery-Principles for risk assesment
- **TS EN 12100-1** Safety of Machinery-Basic Concepts General Principles for Design Part 1: Basic Terminology, Methodology
- **TS EN 12100-2** Safety Of Machinery-Basic Concepts General Principles Fors Design, Part 2: Technical Principles And Specifications
- **TS EN 953** safety Of Machinery-Guards-General requirements for the design and construction of fixed and guards
- **TS EN 294** safety of machinery-Safety distances to prevent danger zones being reached by the upper limbs
- **TS EN 981** safety of machinery-
- **TS EN 954-1** Safety of machinery –Safety-related parts of control systems-Part 1: General principles dor design.
- **TS EN 1037** safety of machinery-Prevention of unexpected start-up
- **TS EN 61000-6-2** Electromagnetic compatibility (EMC)-Part 6-2: Generic standarts- Immunity for industrial environments
- **TS EN 61000-6-4** Electromagnetic compatibility (EMC)-Part 6-4: Generic standarts-Emission standarts for industrial environments
- **TS 3033 EN 60529** Degrees of protection provided by enclosures (IP code) (for electrical equipments)
- **EN 60204-1** Safety of machinery- Electrical equipment of machines-Part 1: General requirements and following the provision of
- **98/37/AT** Machinery (98/37/EC)
- **73/23/AT** Low voltage equipment (73/23/EEC,93/68/EEC)
- **93/68/EC** Electromagnetic compability (89/336/EEC;92/31/EEC;93/68/EEC) (98/13/EEC) Directives.

Date- 03.01.2011-  
 Place ANKARA  
 Name Tacettin İLERİ  
 General Manager

Signature

