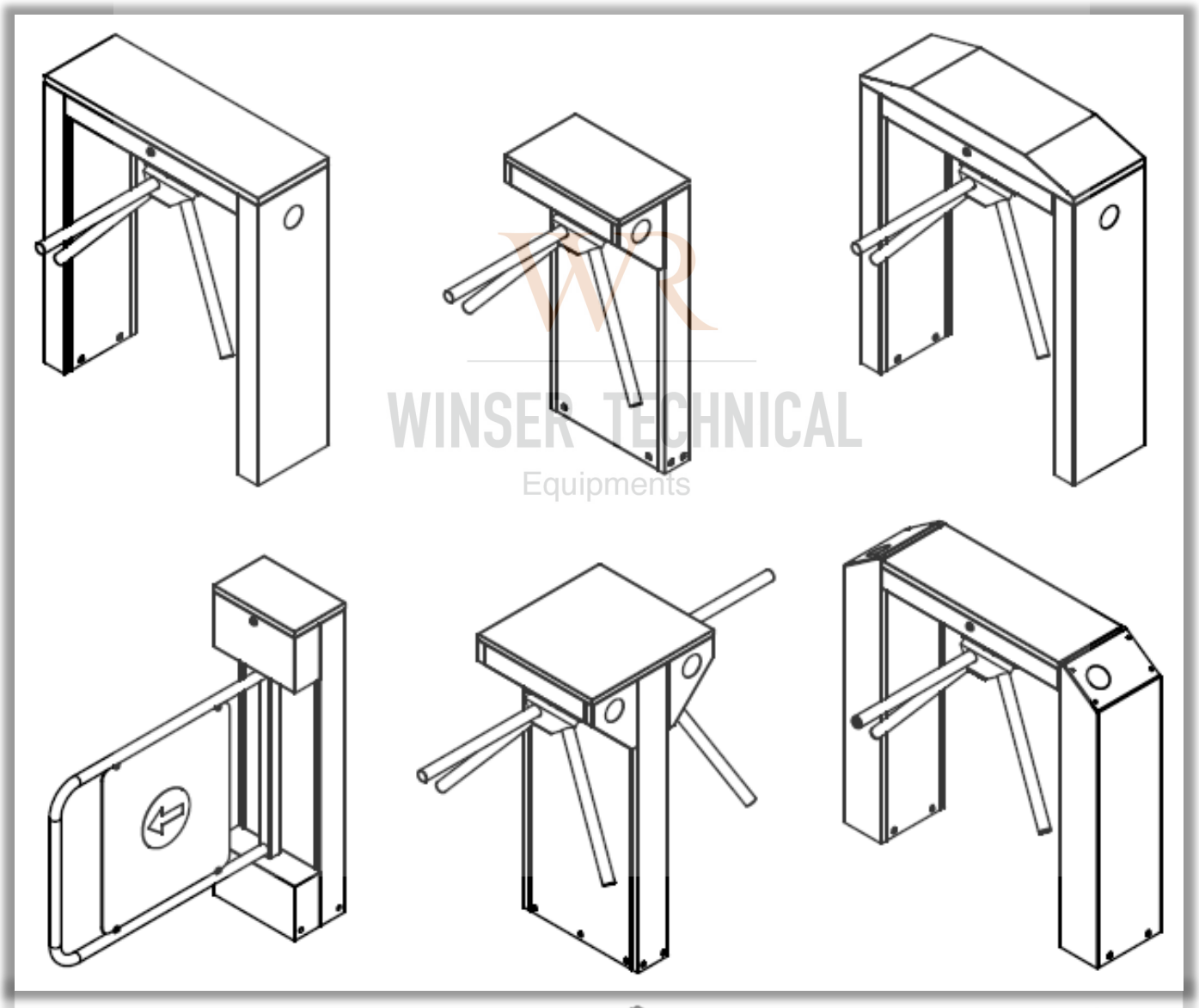
WINSER TECHNICAL
Equipments

TRIPOD / VIP DISABLED PEOPLE TURNSTILE
INSTALLATION ASSEMBLY AND MAINTENANCE MANUAL



ISO 9001

1.1 FOREWORD

Thank you for choosing us in access control systems. In order to use your system for many years without any problems, please take into account the recommendations and warnings in this booklet. Please read the explanations carefully in important cases and in case of malfunctions.

1.2 GENERAL INFORMATION ABOUT TURNSTILES

turnstiles; Stadium with controlled human traffic, sports halls, cafeterias, student dormitories, schools, parks, factories, etc. They are systems used in places where access control is carried out.

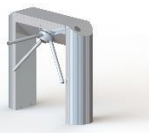
It is made of stainless steel or electrostatic painted sheet material and shows high resistance against the external environment.

Except for VIP Turnstiles, Optical Turnstiles and Fast Access Turnstiles, the turnstiles are designed so that only one person can pass at a time.

As a pass control; barcode, data matrix, smart card, token, fingerprint, face recognition etc. It can work with all kinds of dry contact access control units.

The parts on the mechanism are galvanized and protected against corrosion.

1.3 TURNSTILE MODELS

WR-212 	WR-212-D 	WR-214 	WR-214-D 	WR-224 
WR-232 	WR-242 	WR-262 	WR-262-D 	WR-268 
WR-270 	WR-272 	WR-274 	WR-276 	WR-278 
WR-322-B 	WR-322-C 	WR-324-B 	WR-324-C 	

2 SAFETY AND TERMS OF USE

2.1 SAFETY INSTRUCTIONS

1) Turnstile users should take care not to open the turnstile. Repairs should only be made by authorized and qualified persons. Repairs made unconsciously pose a danger to the turnstile and the user.
2) Electric arc, gas leakage etc. It cannot be used in dangerous and potentially explosive places.
3) Tourniquet should be kept away from hot environments.
4) Turnstile should not be installed in places where there is vibration.
5) The turnstile should not be exposed to direct sunlight.
6) Turnstile should not be kept in humid environments.
7) Turnstile should be kept away from high magnetic fields.
8) Turnstiles should be protected from all kinds of impacts and jolts.
9) Give voltage at the energy voltage values specified in the technical specifications of the turnstile.
10) Turnstiles can only be used in working temperature environments specified in their technical specifications.
11) Children should not be allowed to play with the turnstile.
12) Before energizing the turnstile, make sure that all connections are correct.
13) When connecting to the entrance - exit connectors of the turnstile, do not use a different material than the one specified.
14) Only use parts and accessories approved by the manufacturer.
15) When an explosion occurs in the turnstiles due to electric arc, cut off the power of the turnstile and consult your dealer or the manufacturer.
16) Make sure that the energy is cut off while cleaning and maintaining the turnstile.
17) Do not use pressurized water while cleaning the turnstile.
18) A damaged turnstile should not be operated and immediately contact the authorized service or the Technical Service of the Manufacturer Company.

2.2 TERMS OF USE

1) More than one person should not try to pass at the same time.
2) Since the system does not allow passage, it should avoid actions that will harm the system (hitting, kicking, etc.).
3) For cleaning purposes, turnstiles (holding water with a hose or pouring water with a bucket, etc.) should not be washed, they should only be wiped with a damp cloth.
4) Never use chemicals for bleaching or brightening. Otherwise, the Manufacturer Company is not responsible for any damage that may occur. Only stainless spray should be used.

3 HANDLING AND INSTALLATION INSTRUCTIONS

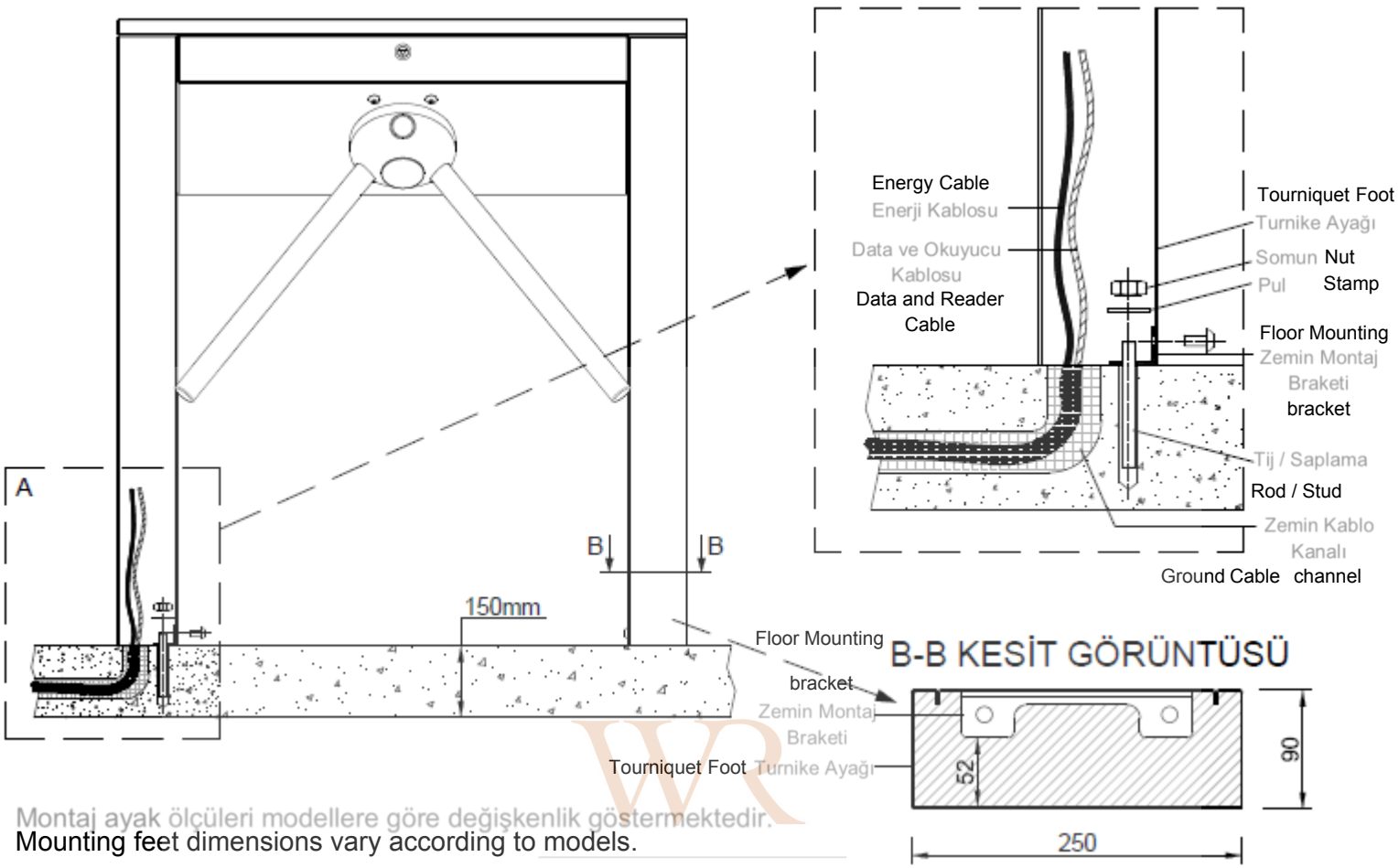
3.1 HANDLING INSTRUCTIONS

1) Make sure that the turnstiles are transported in their original packaging prepared by the manufacturer (AKS).
2) Follow the transport and stacking instructions on the packaging.
3) Do not place a heavy load on the turnstile packages.
4) Do not put the packaged turnstile on a wet floor.
5) Do not leave the packaged turnstile under the rain.
6) Use a lift suitable for its weight during transportation.
7) Before starting the assembly, check whether there is any damage during transportation and whether the assembly and connection parts are complete.

3.2 INSTALLATION INSTRUCTIONS

1) The mounting location should be determined by taking into account the user's requests and in a way that does not prevent the turnstile from working.
2) It should be checked whether the ground on which the turnstile will be fixed is smooth. If the floor is not smooth, the floor should be leveled with concrete before installation.
3) The mounting holes of the turnstile are marked and the holes of the turnstile legs should be drilled with the help of a Ø13 drill to keep the air and remove dust.
4) Steel jacketed dowels are driven into the cleaned holes. Chemical anchors should be applied on floors where there is no holding feature. The average hardening time of the chemical anchor is 30 minutes.
5) Turnstile ground mounting feet are fixed to the ground with steel dowels and turnstile frame is mounted on the feet.
6) Energy and control cables drawn up to the location of the turnstile are processed and their connections are made.

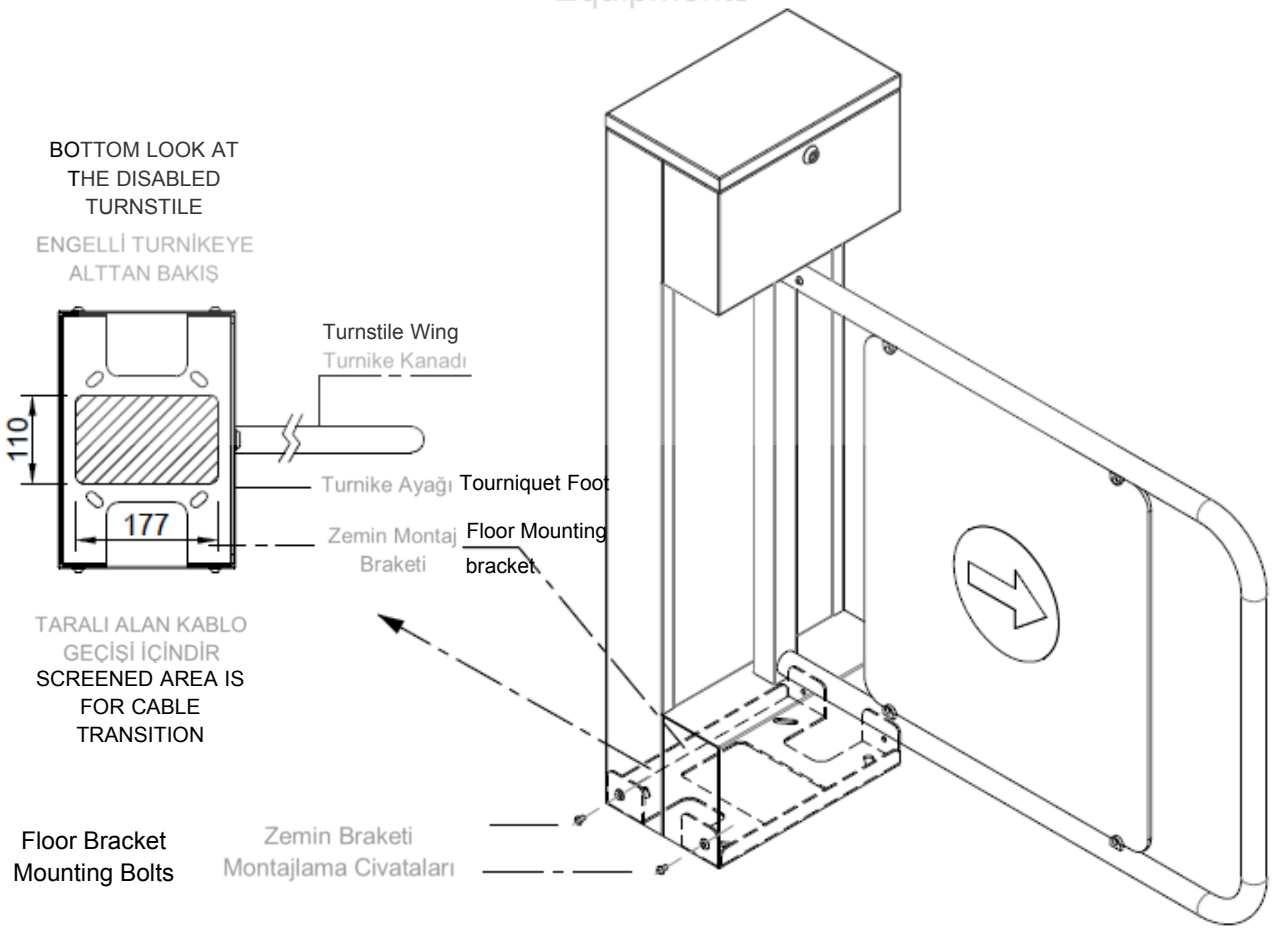
3-2-1 TRIPOD TURNSTILE INSTALLATION DETAIL



Montaj ayak ölçüleri modellere göre değişkenlik göstermektedir.
Mounting feet dimensions vary according to models.

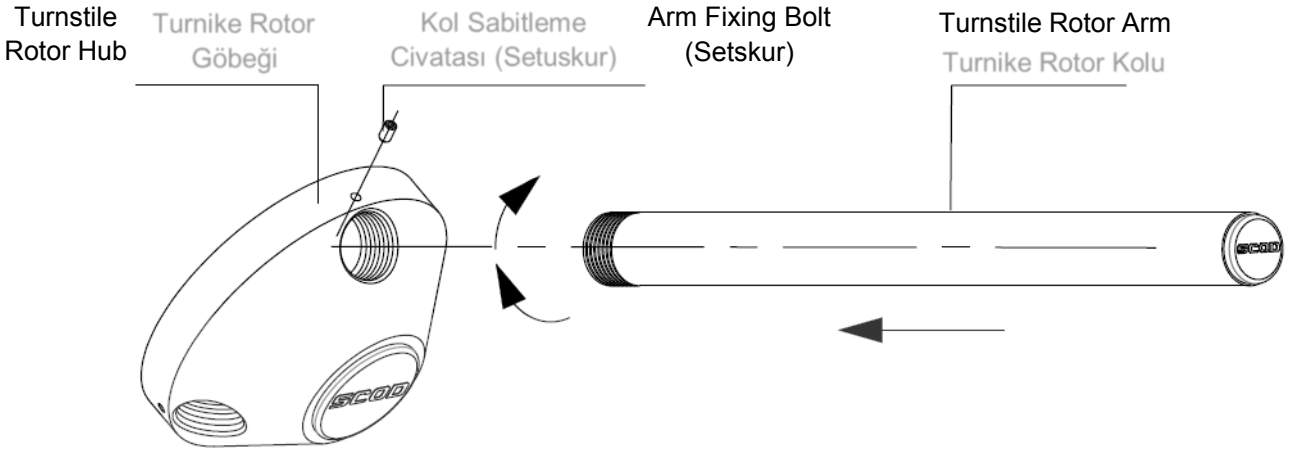
TARALI ALAN KABLO GEÇİŞİ İÇİNDİR
SCREENED AREA IS FOR CABLE TRANSITION

3-2-2 VIP/DISABLED TURNSTILE INSTALLATION DETAIL



3-2-3-1 TRIPOD TURNSTILE ARM ASSEMBLY DETAIL

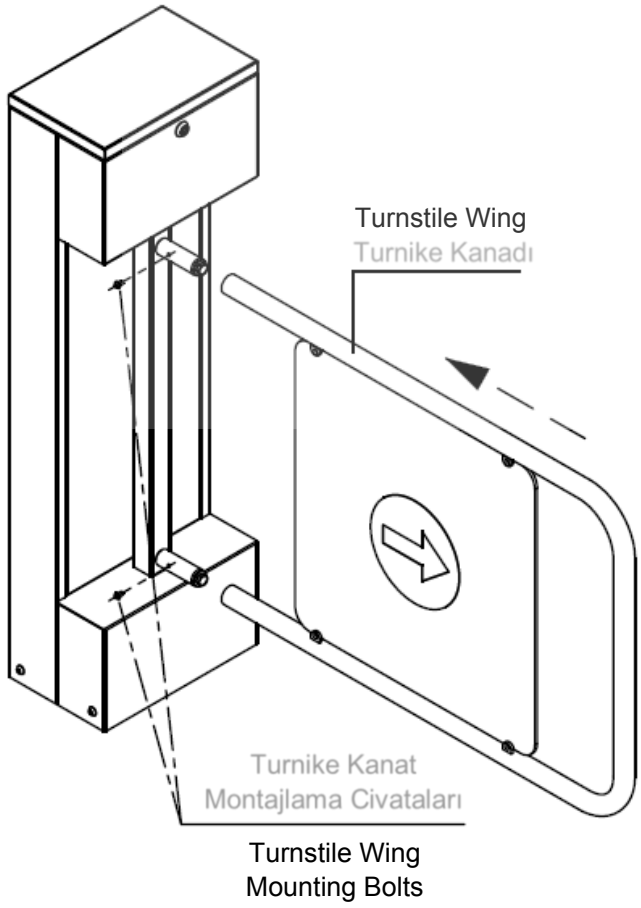
The turnstiles are packed in such a way that the rotor arms are removed before shipment and the rotor arms are disassembled. Attaching the arms of the turnstiles to be installed is shown below.



1) As shown in the figure, each rotor is oriented axially to the rotor hub and assembled by turning it clockwise. (Make sure the arm fixing bolt is not tightened.)
2) After the rotor arm that is installed in its place is fully tightened, the arm fixing bolt (setskur) is tightened with a wrench and the rotor arm is fixed. Assemble the other 2 rotor arms in the same way.

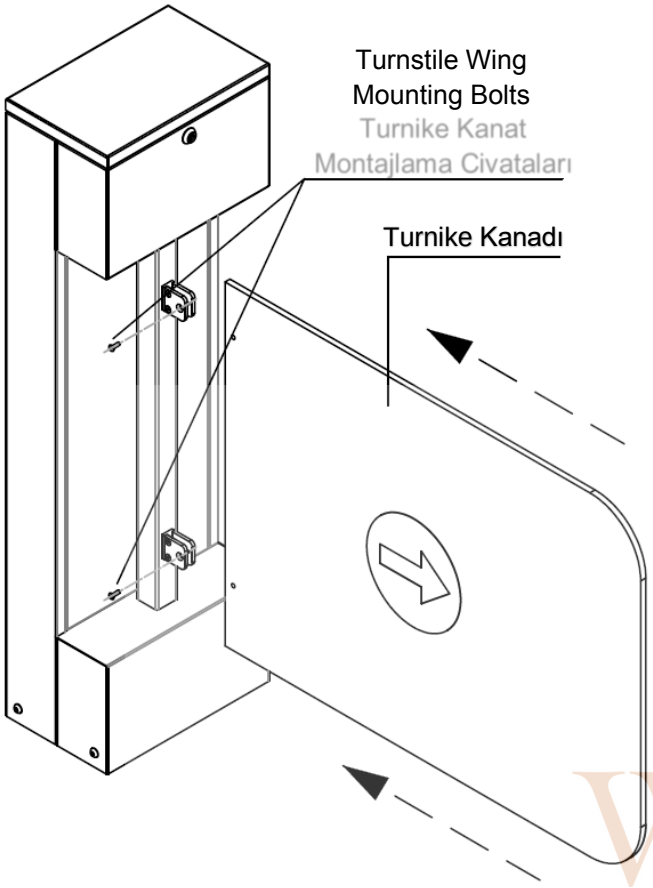
Note : Care must be taken to ensure that the rotor arm is properly mounted (perpendicular to the fully threaded rotor hub hole) during assembly. Otherwise, tooth deterioration may occur when it is over-stressed.

3- 2-3-2 VIP/DISABLED TURNSTILE ARM INSTALLATION DETAIL
- VIP / DISABLED PIPE TYPE WING MOUNTING



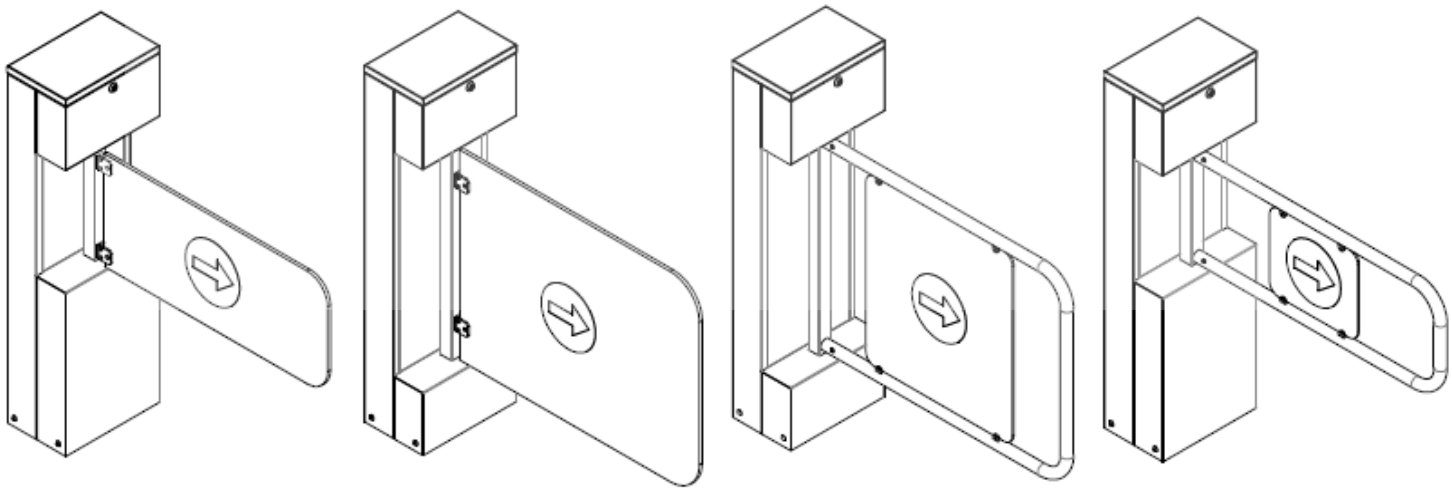
In VIP disabled turnstiles, the wing is packaged and shipped as demounted. Wing assembly is done as shown below.
1-) Put the turnstile wing pipe ends on the turnstile profile to the shafts so that they fit the small holes in the pipe ends.
2-) When full insertion is achieved, assemble the turnstile wing mounting fixing bolts as in the figure.

-VİP /ENGELLİ PLEKSİ TİPİ KANAT MONTAJ ŞEKLİ



If the wing of VIP disabled access turnstiles is completely plexiglass, the wing assembly should be done as in the figure on the side.
1-) Make sure that the holes on the turnstile wing/Plex come close to the glass handles on the fixed profile of the turnstile.
2-) When the holes in the glass handles line up exactly, screw the turnstile wing mounting fixing bolts as shown on the side.

In the following models, the pipe type ones should be installed according to the "VIP / DISABLED PIPE TYPE WING MOUNTING SHAPE" assembly steps, the plexi type ones should be installed according to the "VIP / DISABLED PLEXI TYPE BLADE MOUNTING SHAPE" assembly steps.
The final view of the turnstiles with their wings mounted is shown below.



4.1. TURNSTILE WORKING SYSTEM FEATURES TABLE

TURNSTİLE MODELS	MECHANISM TYPE		OPERATING FEATURES			MATERIAL	
	MANUAL	MOTORİZED	MOVEMENT	LOCKİNG	SLOW DOWN	BODY	ARM / WING
WR-212 WR-212D	✓		MANUAL HAND PUSH	SELENOİD	HYDRAULIC SHOCK ABSORBERS	ANSI 304 STAINLESS STEEL	3 ARMS ALÜMİNYUM (OP. STAINLESS)
WR-214 WR-214D	✓						
WR-224	✓						
WR-232	✓						
WR-242	✓						
WR-262 WR-262D	✓						
WR-268	✓						
WR-270	✓						
WR-272	✓						
WR-274	✓						
WR-276	✓						
WR-278	✓						
WR-322-C		✓	WITH ENGINE		CENTERING WITH SPRING		SİNGLE WING PLEXI
WR-322-B		✓					SINGLE WING ALUMINUM PIPE INSIDE PLEX
WR-324-C		✓					TEK KANAT PLEKSİ
WR-324-B		✓					TEK KANAT ALÜMİNYUM BORU İÇİ PLEKSİ

4.2. TURNSTILE WORKING SYSTEM

1- All parts of the turnstile are designed to work in accordance with the passage in both directions. Turnstile arms turn into an emergency mode when the electricity is cut off.
2- The turnstile mechanism is made of reinforced steel and is offered to the use of the customer after being subjected to a control test. It has high resistance to rust and corrosion.
3- The hydraulic shock absorber that controls the passage in Tripod / Waist type turnstile models dampens unbalanced sudden movements silently and without impact, and ensures that the system works at ideal speed.
4- Transition direction indicators on both sides of the upper body of the turnstile, green and red indicators during the transition, visual confirmation information is given with a buzzer.
5- The solenoids used in the system work with microprocessor control and their temperatures do not rise 10 degrees above the ambient temperature.
6- The electronic card system used in the turnstiles has a microprocessor and can be programmed for different functions.
7- There is "switch-mode" technology in the system.
8- If the turnstile is not passed after the entrance signal is received, it is automatically locked at the end of the specified time (the specified time can be adjusted with the dip switch).
9- The turnstile has been designed mechanically and electrically to allow only one person to pass.
10- After the pass, the direction information passed is given to the outside of the dry contact.
11- The electronic control unit has been placed inside the panel and has been made protected against water.
12- Turnstiles can operate in synchronization with door type detectors and many devices.
13- Turnstile passages can be adjusted in many directions, such as locked in one direction, free in the other, controlled in both directions or free in both directions.
14- Controlled access to one or both directions can be provided in line with the customer's request, with card reader, button and similar systems.
15- After the transition, entry and exit information is collected and all information can be displayed on the program if desired.
16- In case of emergency, the entrance and exit directions are free. Closed contact is controlled by data coming from fire systems.

4.2. DISABLED / VIP WORKING SYSTEM

1- The system design is microprocessor controlled and works in two directions.
2- All parts of the turnstile are designed to work in accordance with the passage in both directions. Turnstile arms turn into an emergency mode when the power is cut off.
3- Movement is provided by DC motor driven by PWM.
4- When a signal is received from the outside, the mechanism lock is opened and the arm moves in the desired direction. If it encounters an obstacle on the wing, the wing stops and gives an alarm and the arm comes to the free position. Activation of the reset position can be manually, time-controlled or externally provided. When the pass is granted, if the system is blocked during opening, it will stop by itself and give an alarm output.
5- At the end of the transition, the time function can be closed with an optional photocell or manually.
6- Closed contact to fire alarm systems or button can be controlled.
7- The solenoids used in the system work with microprocessor control and their temperatures do not rise above the ambient temperature by 10°C.
8- The electronic card system used in the turnstiles has a microprocessor and can be programmed for different functions.
9- There is "switch-mode" technology in the system.
10- Turnstiles can operate in synchronization with door type detectors and many devices.
11- Turnstile passages can be adjusted in many directions, such as locked in one direction, free in the other, controlled in both directions or free in both directions.
12- Controlled access to one or both directions can be achieved in line with the customer's request, with card reader, button and similar systems.
13- After the transition, entry and exit information is collected and all information can be displayed on the program if desired.
14- In case of emergency, the entrance and exit directions are free. Closed contact is controlled by data coming from fire systems.

5.1. ELECTRICAL CONNECTIONS AND GROUNDING

Use 3x1.5mm TTR power cable and 30mA residual current relay for turnstile supply.

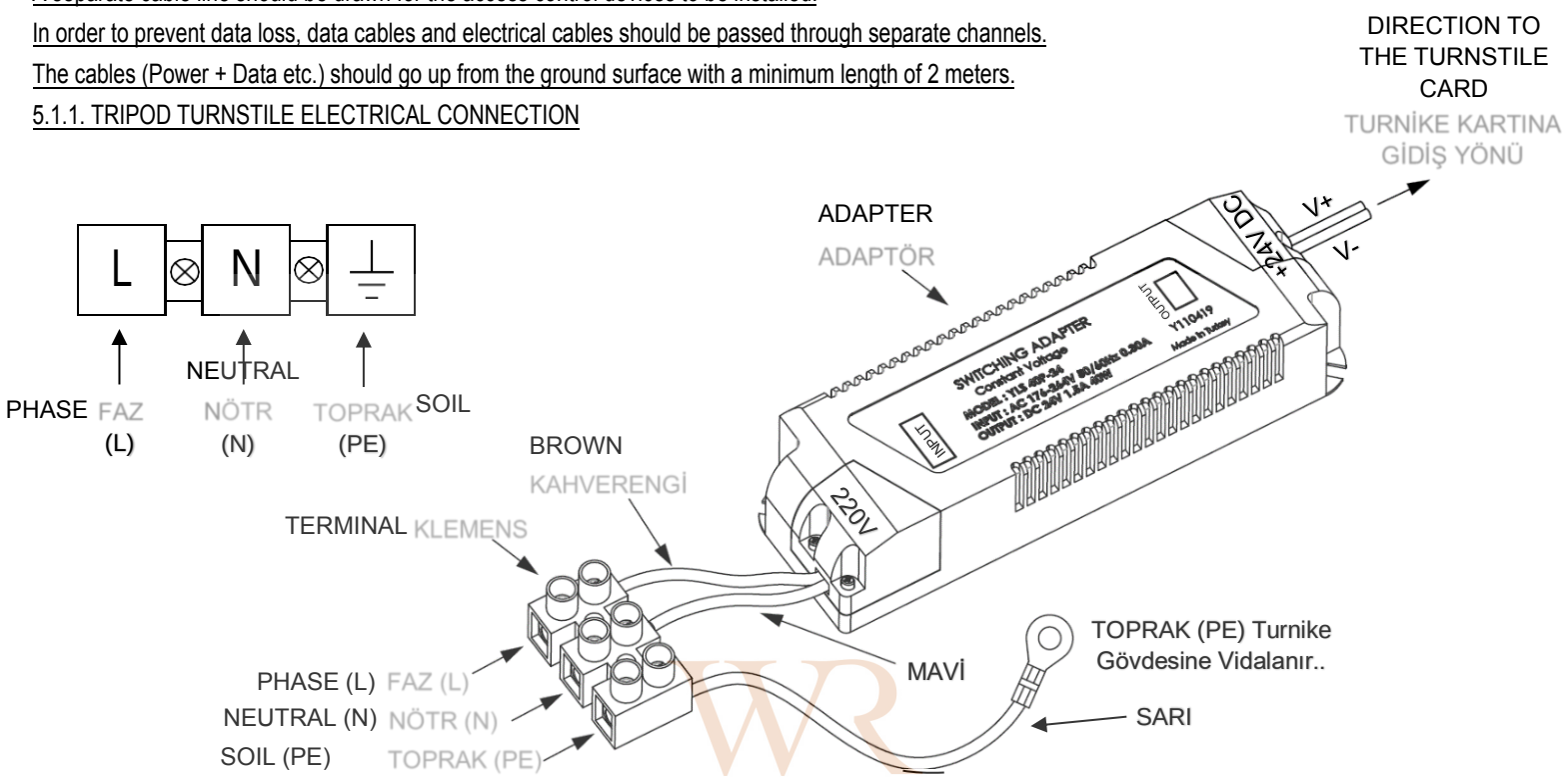
Grounding must be connected.

A separate cable line should be drawn for the access control devices to be installed.

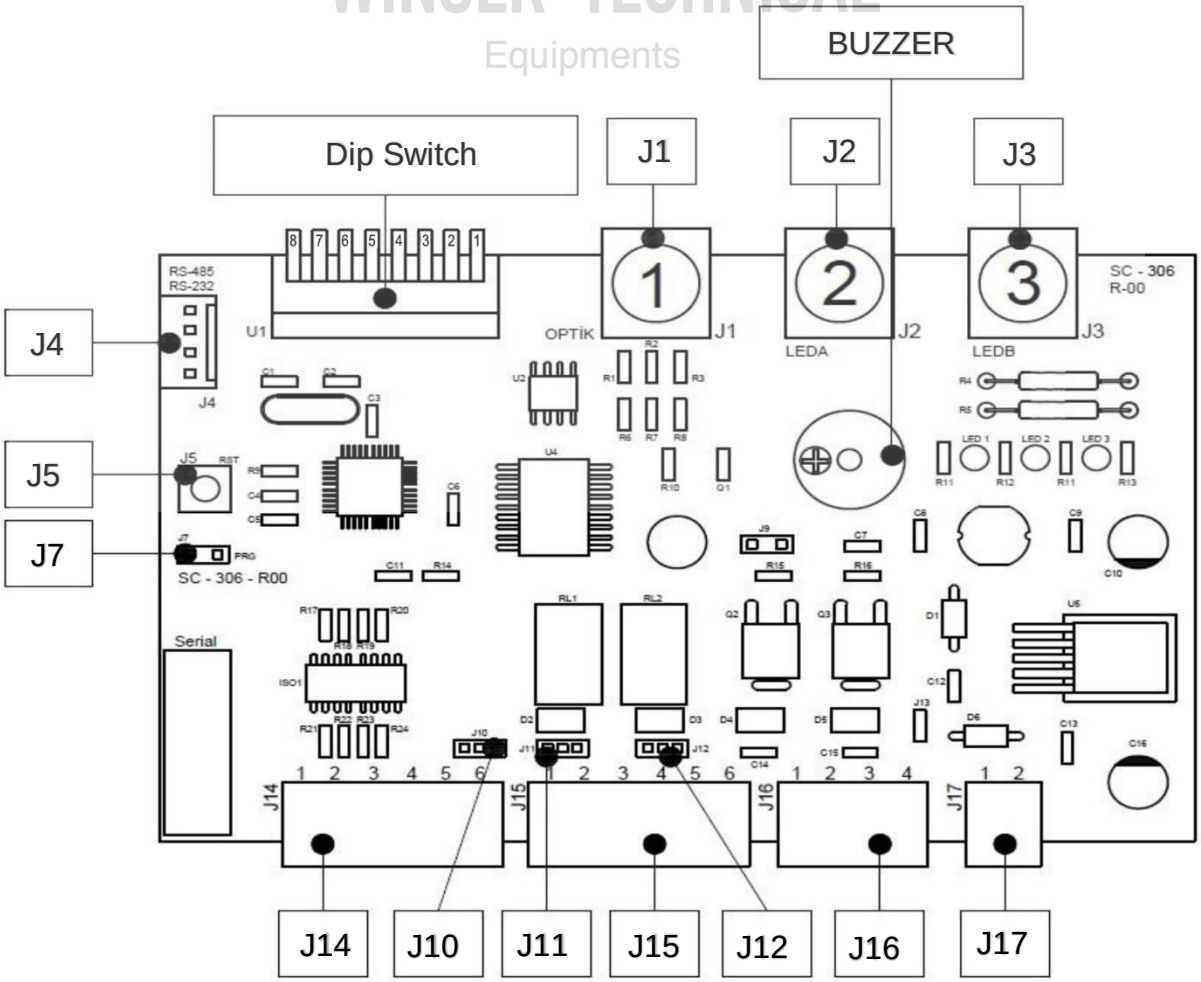
In order to prevent data loss, data cables and electrical cables should be passed through separate channels.

The cables (Power + Data etc.) should go up from the ground surface with a minimum length of 2 meters.

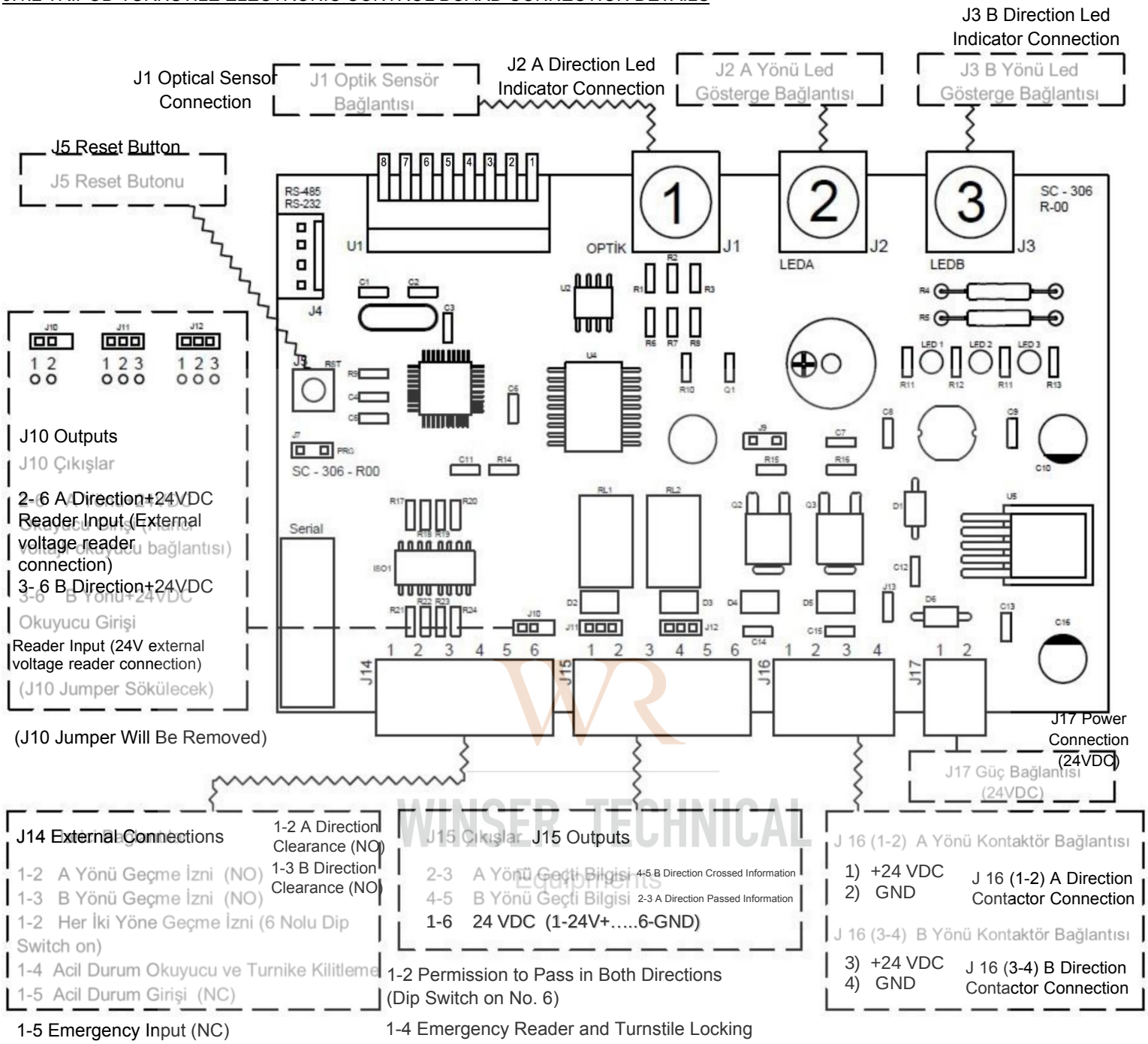
5.1.1. TRIPOD TURNSTILE ELECTRICAL CONNECTION



TRIPOD TURNSTILE ELECTRONIC CONTROL BOARD



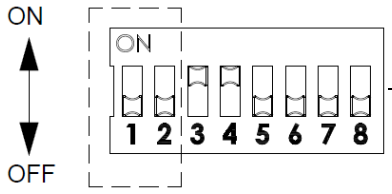
5.1.2 TRIPOD TURNSTILE ELECTRONIC CONTROL BOARD CONNECTION DETAILS



5.1.3 TRIPOD TURNSTILE DIP SWITCH LOCATIONS:

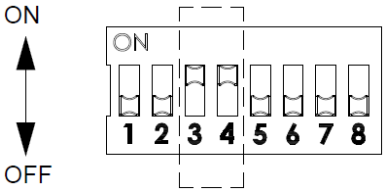
After switching on, the turnstile's open time and transition mode settings are made with the dip switch on the electronic card as follows.

Dip switches no. 1-2 open the waiting time after the turnstile is allowed to pass.

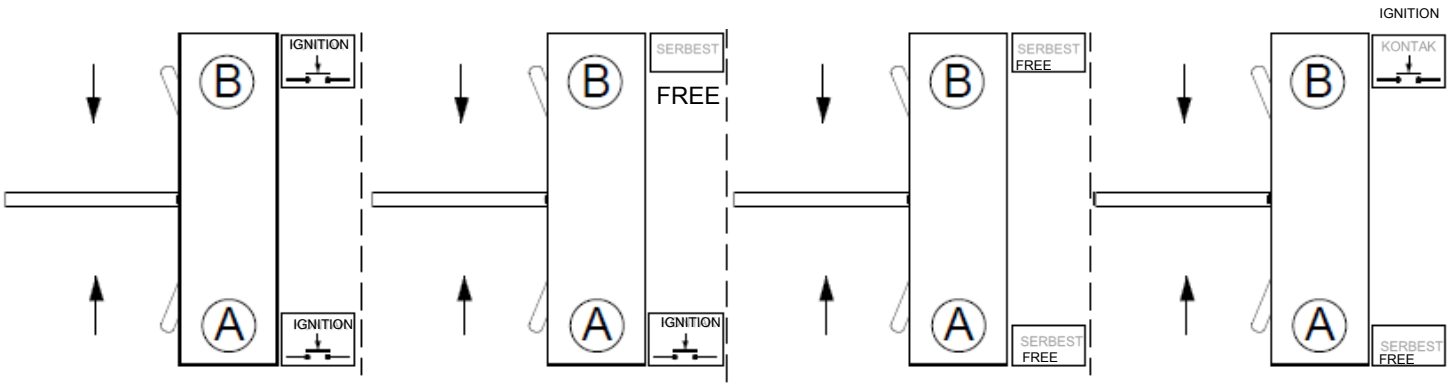


TIME ADJUSTMENT		
DİP SWITCH		
1	2	TIME
OFF	OFF	5 sn
ON	OFF	10 sn
OFF	ON	15 sn
ON	ON	20 sn

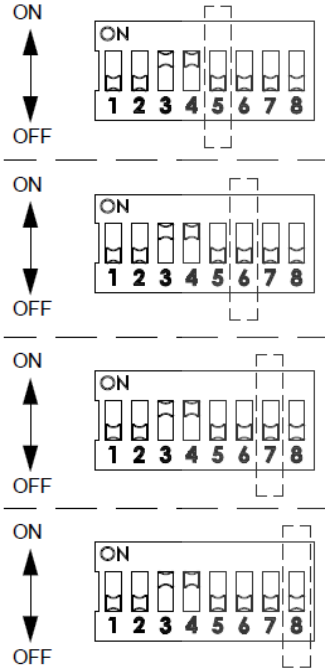
Dip switches 3-4 determine the status of turnstile contactors



PASS DIRECTION CONTROL			
DİP SWITCH			
3	4	SHAPE	DIRECTION INFORMATION
ON	ON	SHAPE 1	Controlled in Both Directions
ON	OFF	SHAPE 2	A-B Controlled, B-A Free
OFF	OFF	SHAPE 3	Free Both Ways
OFF	ON	SHAPE 4	A-B Free, B-A Controlled



ŞEKİL 1 ŞEKİL 2 ŞEKİL 3 ŞEKİL 4



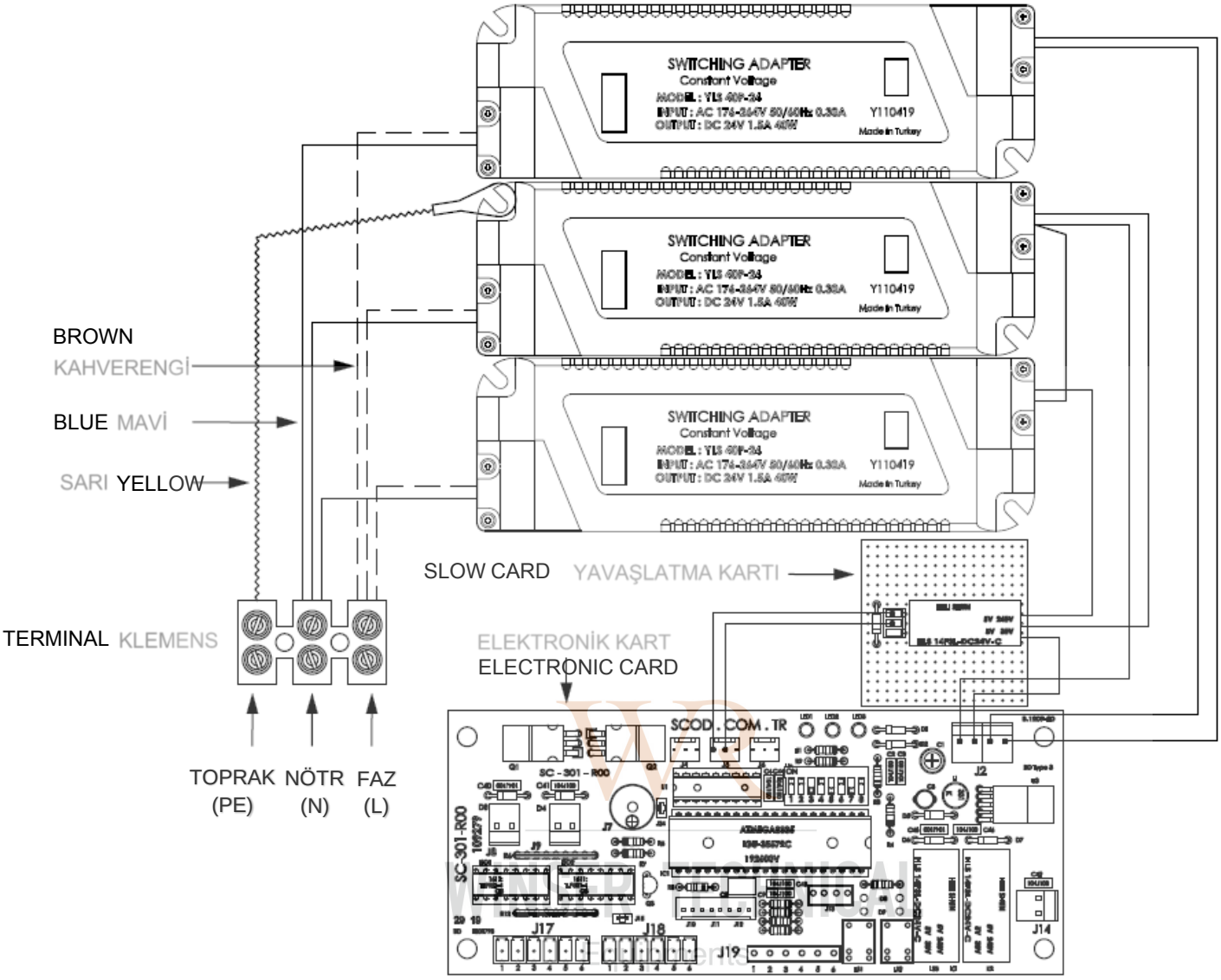
It determines whether there is memory in dip switch opening inputs no.
If dip switch 5 is “OFF”, after a pass is obtained, other pass permits are not taken into account until the pass is completed. If dip switch 5 is “ON”, all incoming transition information is memorized. The total number of memories is 200.

Dip switch no. 6 enables the turnstile to be opened in both directions with a single input.
With a single contact, both directions are provided. No matter which way the pass is made, at the end of the passage, the turnstile closes in both directions. (Contact ends 1-2 should be connected.)

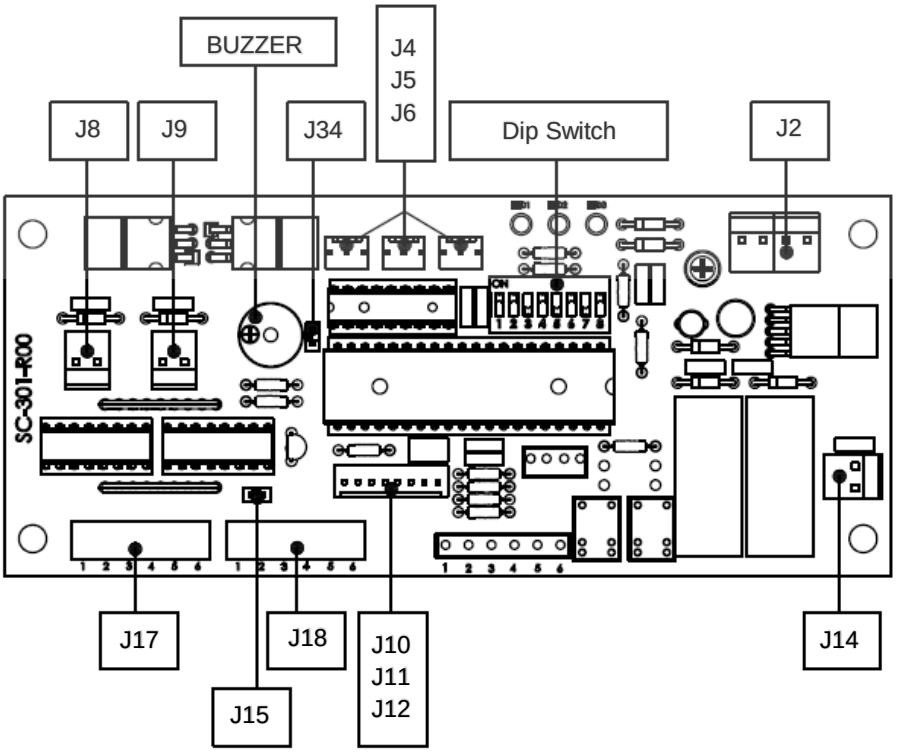
With the dip switch numbered 7, the minimum incoming signal time required for the pass is set.

If dip switch 7 is “ON”, the time is 100 ms, if “OFF” it is 20 ms. This dip switch also determines how long the alarm sensor will remain passive while passing through the turnstile. If the dip switch is “ON”, this time is 1.5 seconds, if “OFF” it is 0.75 seconds.
The audible warning on the turnstile is opened or closed with the number 8 dip switch.
If dip switch 8 is “ON”, the buzzer is on, if it is “OFF”, the buzzer is off.

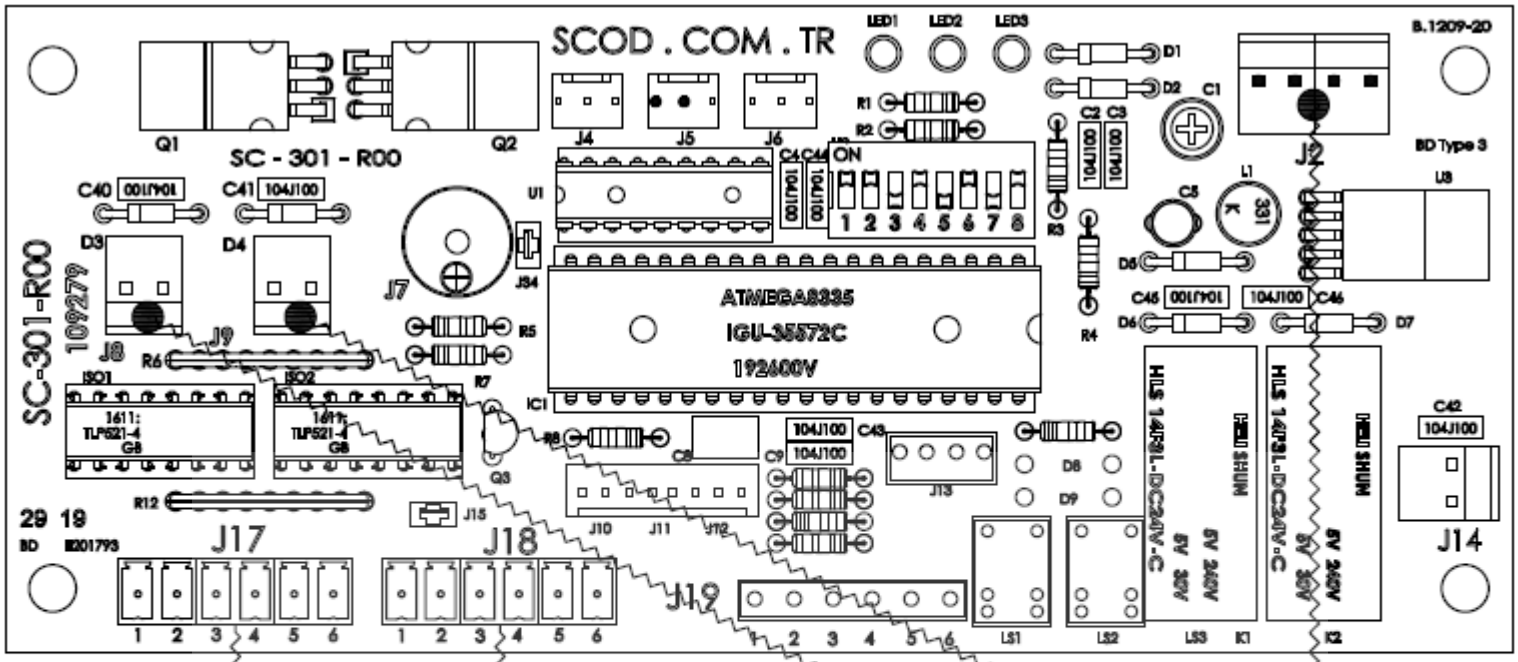
5.2.1 DISABLED / VIP TURNSTILE ELECTRICAL CONNECTION



DISABLED / VIP TURNSTILE ELECTRONIC CONTROL BOARD

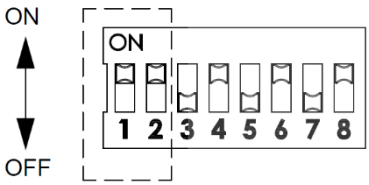


5.2.2 ENGELLİ / VİP TURNİKE ELEKTRONİK KONTROL KARTI BAĞLANTI DETAYLARI



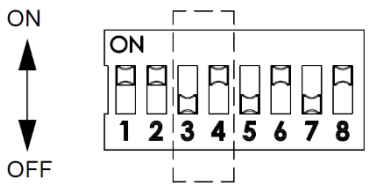
5.2.3 DISABLED / VIP TURNSTILE DIP SWICH LOCATIONS:

After switching on, the turnstile's open time and transition mode settings are made with the Dip switch on the electronic card as follows.



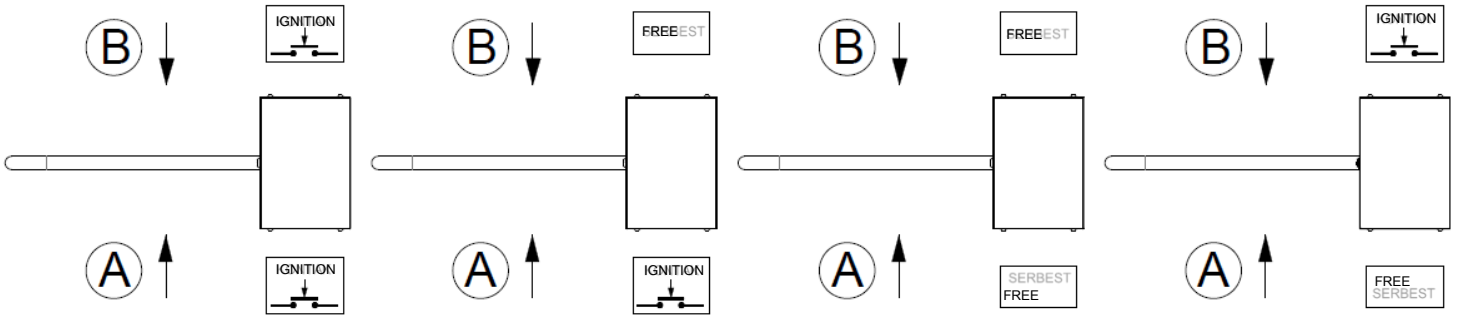
Dip switches 1-2 sets the waiting time after the turnstile is allowed to pass.

TIME ADJUSTMENT		
DİP SWITCH		
1	2	TIME
OFF	OFF	5 sn
ON	OFF	10 sn
OFF	ON	15 sn
ON	ON	20 sn

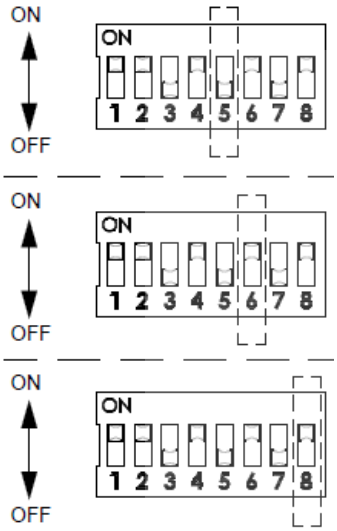


Dip switches 3-4 determine the state of turnstile solenoids.

PASS DIRECTION CONTROL			
DİP SWITCH			
3	4	ŞEKİL	DIRECTION INFORMATION
ON	ON	ŞEKİL 5	Her İki Yöne Kontrollü
ON	OFF	ŞEKİL 6	A-B Kontrollü, B-A Serbest
OFF	OFF	ŞEKİL 7	Her İki Yöne Serbest
OFF	ON	ŞEKİL 8	A-B Serbest, B-A Kontrollü



ŞEKİL 5 ŞEKİL 6 ŞEKİL 7 ŞEKİL 8

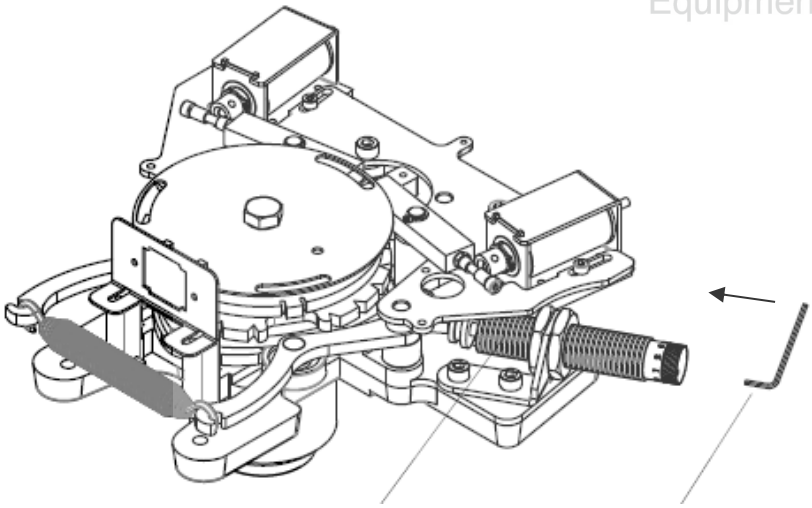


Dip switch 5 Adjusts the arm direction in case of emergency.

Dip switch #6 allows the arm to come back automatically after the movement.

The audible warning on the turnstile is opened or closed with the dip switch no.
If dip switch 8 is “ON”, the buzzer is on, if it is “OFF”, the buzzer is off.

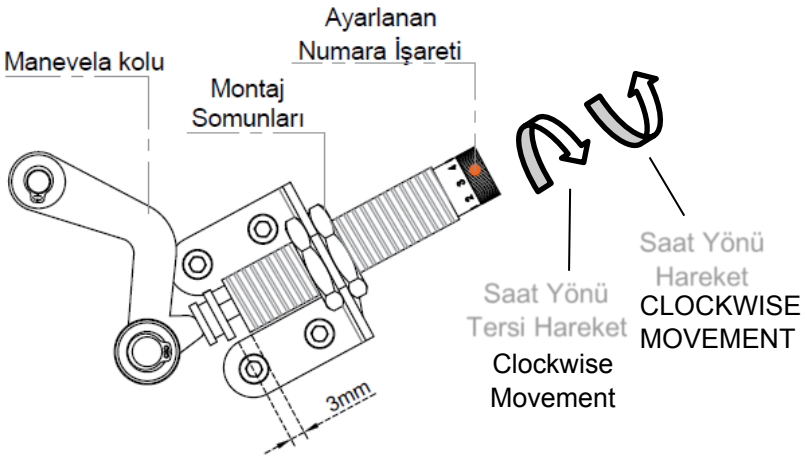
6 HYDRAULIC SHOCK ABSORBER SETTINGS and SPARE PARTS LIST 6.1 Hydraulic Shock Absorber Settings



Hydraulic Shock Absorber

HYDRAULIC SHOCK ABSORBER ADJUSTMENT	
Situation	**Adjustment Direction**
If the arm does not stay in the center and moves forward and backward	By turning it clockwise, braking should be increased.
If the arm is having trouble coming to the center	Braking should be reduced by turning it counterclockwise.

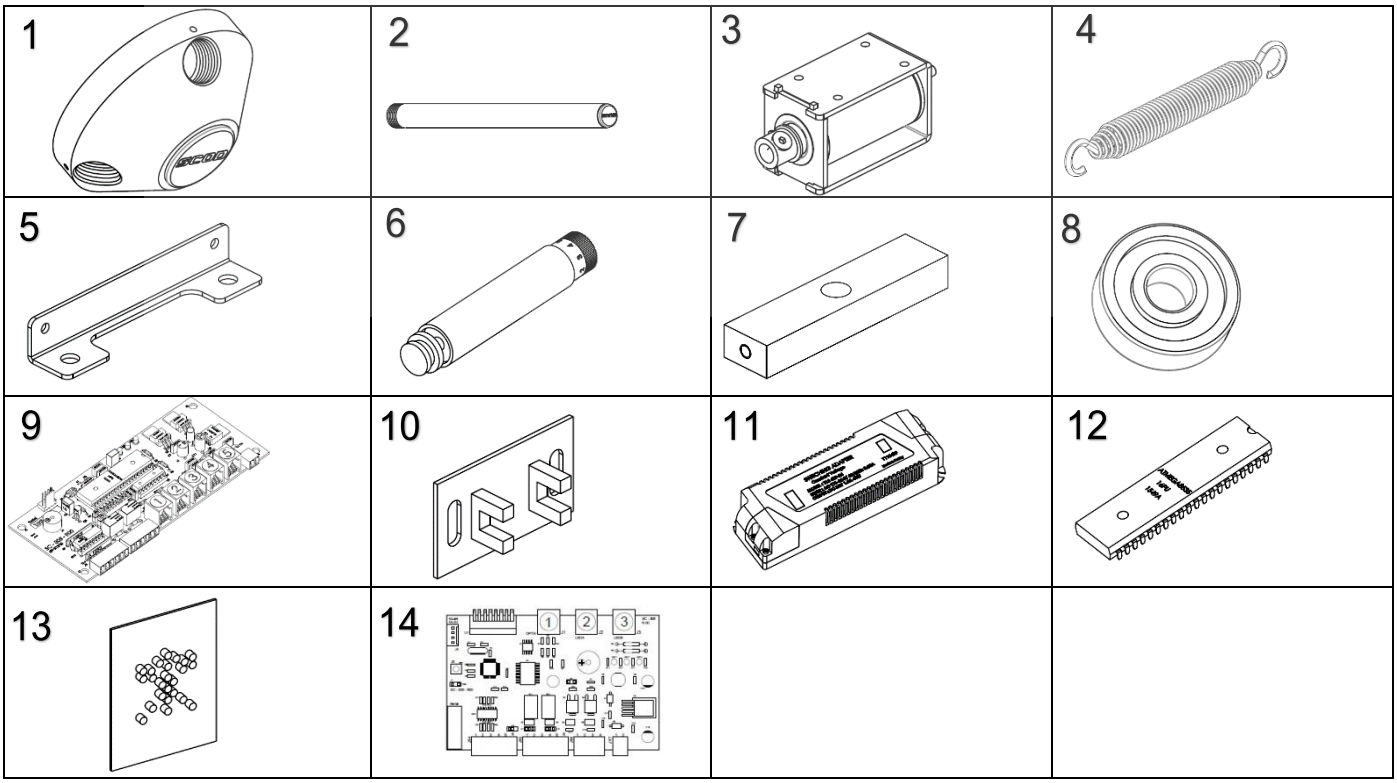
Conditions to be Adjusted...
It may be necessary to adjust the hydraulic shock absorber as a result of wear over time or due to high temperature difference in the environment. Hydraulic shock absorber adjustment should be made in cases where the arm does not come over the center or passes the center (too much forward movement) during operation.
Attention: Before making the adjustment, attach the tightening ring located on the inside of the turnstile body next to the mechanism (in the direction of the hydraulic shock absorber) to the rear of the hydraulic shock absorber as in the figure and loosen the bolt by moving it counterclockwise. The way of adjustment is given in the table below. You can change the knurled tip on the bottom of the hydraulic shock absorber in both directions, according to the table. Tighten the hex bolt again after the adjustment is complete.



If the hydraulic shock absorber needs to be replaced, loosen the mounting nuts and remove the hydraulic shock absorber. When installing a new one, adjust it so that the lever arm is in the position of pressing the hydraulic shock absorber, tightened as in the picture and there is a gap of 3mm.

6.2 YEDEK PARÇA LİSTESİ SPARE PART

PART NO	TRACK NAME
1	Rotor Hub
2	rotor arm
3	Selenoid
4	Centering Spring
5	Turnstile Floor Mounting Sheet
6	Shock Absorber (Brake)
7	Locking Tab
8	Spring/Brake Centering Bearing (6900)
9	Electronic Turnstile Card (VIP)
10	Optical Sensor (metal Approach)
11	Adapter 24V
12	Microprocessor
13	Electronic Led Card
14	Electronic Turnstile Card (Tripod)
15	contactor



7 SERVICE AND MAINTENANCE

7.1. MAINTENANCE INSTRUCTIONS

The working environment and maintenance are very important for the turnstile to work with the first day's performance for many years. Dust, dirt and free metal dust are the most important factors that shorten the life of the turnstile mechanism. Before starting the maintenance of the turnstile mechanism, make sure that the electricity is turned off and hang the warning sign on the switch.

7.2. USER MAINTENANCE

1) The outer body of the turnstile should be dusted with a damp cloth.
2) External connection screws should be visually checked every 3 months.
3) If loosening is observed in the connecting screws, contact your vendor or the manufacturer.

7.3. MAINTENANCE PERFORMED BY AUTHORIZED SERVICE

Maintenance performed by the authorized service is carried out once a year. General cleaning and maintenance of turnstile. The ground mounting screws and mechanism mounting screws are checked and the loose ones are tightened. Bolts and grub screws on the arms and hub are checked. The springs on the mechanism are checked. Worn out or non-functional springs are replaced with new ones. While the system is running, suitable oils are applied to the parts that will cause noise and wear. Bearings, springs, solenoids, mechanism bolts, hydraulic shock absorber are checked and adjusted. On the side of the electronic board, the direction sensor, cables and sockets, direction leds and audible warnings are tested and adjusted.

7.4. TROUBLESHOOTING

S1) Turnstile lights do not turn on, does not give a warning sound, arms turn idle.

C1) There may be disconnection, non-contact or oxidation in the electrical connection sockets and terminals. Check the cables and connections, change the adapter if necessary.

S2) After a pass is made, turnstile arms are released.

C2) Direction sensing sensors are broken, solenoids may be stuck or there may be a software problem. Check the sensors, replace them if necessary, clean the solenoid pins and check their springs. If the problem is software, please contact the manufacturer (AKS Elektronik).

S3) Although the LEDs and the audible warning work properly and allow passage, turnstile arms do not allow passage.

C3) The cables of the leds and solenoids may be reversed according to the direction of passage. Check and correct the cable connections.

S4) Although there is electricity in the device, turnstile arms rotate freely.

C4) Solenoids or control card may be faulty. Clean the solenoids and check their position. If not, replace the solenoids with new ones.

S5) Passing information cannot be obtained from the turnstile.

C5) The optical sensor may be broken or its cable may be disconnected. Check the sensor and sensor connections. Check the turnstile data cable.

S6) Metal rubbing sound is heard when turnstile arms turn.

C6) Turnstile mechanism moving parts may be left without oil. Lubricate the mechanism wheels with rubber-added grease.

S7) The turnstile does not work stably during seasonal transitions and temperature changes.

C7) Sudden temperature changes in the environment can change the operating characteristics of elements such as spring and hydraulic in the turnstile mechanism. You can adjust the system operation by adjusting the hydraulic shock absorber part.

S8) After passing the turnstile, the arm does not return to its normal position.

C8) This problem may be caused by centering spring or hydraulic shock absorber. Please check Centering spring and hydraulic shock absorber.
S9) Although the turnstile gives a late signal, the arms do not turn.
C9) This malfunction may be caused by access control device, electronic card and solenoid. Please check these parts and contact the manufacturer (AKS Elektronik) for malfunctions.
S10) Turnstile allows continuous passage.
C10)This malfunction may be caused by solenoids, locking tabs or turnstile transition mode. Please check these parts.
You can reach us at info@winsertech.com without hesitation on issues such as all kinds of spare parts and technical support.

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