BARRIERS Vehicular gate operator

INSTALLATION INSTRUCTION MANUAL





PLATINUM ACCESS SYSTEMS™

TABLE OF CONTENTS

1. General Safety Precautions	
2. Operating Specifications	
3. Parts Diagram/Parts List	
Inner Components	
Structural Components Diagram	5
Gear Motor	5
Structural Components List	
4. Mounting Installation	
Standard Installation Floor Plan	7
Product Dimensions	
Concrete Base and Preparation	9
5. Arm Installation	
Arm Assembly	
Strut Selection	
Pictorials For Reference	
Strut Mounting	
Arm Balancing	
Limit Switch Adjustment for the Opening and Closing Position	
6. Electrical Installation	
Electrical Power Source Connection (to circuit-board)	
Battery and Power Supply Connections Diagram	
7. Inductive Loop Installation	
8. Loop Rack Installation	
9. Accessory Connections	
Electrical Circuit Board Pictorial Layout	
Open Commands	
Detection Loop	
Radio Receiver	
Light and Flash control	
Primary/Secondary	
Guard Station	
Optional: Solar Power Diagram	
Optional: Flash Enable Jumper	
Alarm	
Front Door Lock (ULOK)	
10. Manual Operation of the Barrier Gate	
Open, Stop, Close (commands on circuit board)	
Manual Release	
11. Manual Adjustments	
Arm Speed	
Obstruction/Instant Reversing Sensor	
12. Routine Maintenance	
13. Gate Operator Synchronization	

This installation manual is intended for professionally competent personnel only. Installation, electrical connections and adjustments must be performed in accordance with Good Working Methods and in compliance with applicable regulations.

Before installing the product, carefully read the instructions. Bad installation could be hazardous. The packaging materials (plastic, polystyrene, etc.) should not be discarded in the environment or left within reach of children, are these are potential source of hazard.

Before installing the product, make sure it is in perfect condition.

Do not install the product in an explosive environment and atmosphere : gas or inflammable fumes are serious hazard risk.

Before installing the motors, make all structural changes relating to safety clearances and protection or segregation of all areas where the risk of being crushed, cut or dragged, and danger areas in general. Make sure the existing structure is up to standard in terms of strength and stability. The motor manufacturer is not responsible for failure of use Good Working Methods id buildings frames to be motorized or for any deformation occurring during use.

The safety devices (photocells, safety edges, emergency stops, etc.) must be installed taking into account: applicable laws and directives, Good Working Methods, installation premises, system operating logic and the forces developed by the motorized barrier.

The safety devices must protect any areas

where the risk exists of being crushed, cut or gragged, or where there are any other risks generated by the motorized barrier.

Apply hazard area notices required by applicable regulations.

Each installation must clearly show the identification details of the motorized barrier.

Before making power connections, make sure the plate details correspond to those of the power mains. Fit an omnipolar disconnection switch with a contact opening gap of at least 3mm.

Make sure adequate residual current circuit breaker and overcurrent cutout are fitted upstream of the electrical system. When necessary, connect the motorized barrier to a reliable earth system made in accordance with applicable safety regulations.

During installation, maintenance and repair, interrupt the power supply before opening the lid to access the electrical parts.

The handle electronic parts, wear earthed antistatic conductive bracelets. The motor manufacturer declines all responsibility in the event of component parts being fitted that are not compatible with the safe and correct operation.

For repairs or replacements of products only original spare parts must be used. The installer shall provide all information relating the automatic, manual and emergency operation of the motorized barrier, and provide the user with operating instructions.

Power Requirements	120 VAC Single Phase at 3 Amps or 220 VAC Single Phase at 1.5 Amp
Main Power	Power Input: 100-240 VAC. Select 115/230 VAC Single Phase
Absorption	1A
Torque	70 Nm
Opening Time	2-6 s/90°
Closing Time	2-6 s/90°
Rod Length (max)	19ft
Service Class	5- INTENSE
Working Temperature	-4°F/ + 158° C

3.1 OPERATING INSTRUCTIONS

Applications: INTENSE (for condominium, industrial and commercial **entrances, parking spaces** with intense vehicle or pedestrian access).

Service class: 5 (minimum 5 years of working life with 600 cycles per day).

Applications: VERY INTENSE (for condominium, industrial and commercial entrances, parking spaces with very intense vehicle or pedestrian access).

- Performance characteristics are to be understood as referring to the recommended weight (approx. 2/3 of the maximum permissible weight). When use with the maximum permissible weight a reduction in the above mentioned performance can be expected.
- Each automatic entrance has variable elements such as: friction, balancing and environmental factors. All of which may substantially alter the performance characteristics of the automatic entrance or curtail its working life or parts thereof (including the automatic devices themselves). The installer should adopt the correct safety conditions for each particular installation.



REF	CODE	Description
1		24 V=motor with encoder
2		Main Control Board GOC-6000
3		Mechanical stop adjusting
4		Key Release
5	SPGY SPGN SPRD38	Grey spring Green spring Red spring ø 1.5"
	SPRD51	Red spring ø 2"
6		Control Panel Box
7		Limit switch
8		Limit switch sliding block

Structural Components Diagram

BARRIER



ITEM	P/N	Description
9	BGA	Gear Arm
10	BBD	Barrier Door
11	BBEN	Barrier Enclosure
12	ВАНВА	Arm Holder Bracket Assy
13	AR	Release Arm with Lock
14	ARB	Release Device Bezel
15	ENTOPC	Enclosing Top Cover
16	AHBRC	Arm Holder Bracket Cover
17	AHBRCL	Arm Holder Bracket Cover Lid
18	AHBRCR	Arm Holder Bracket Cover Ring
19	RPIN	Release Pin
20	Gmotor	Gearmotor Assy
21		Batteries

STANDARD INSTALLATION FLOOR PLAN



ITEM	CODE	Description
1	BENC19	Barrier Enclosure
2	BARM	Barrier Arm, 19ft
3	BARMSP	Fixed Support
4	LAMPH	Flashing Light
5	PA1220 PA1120	Combination Keypad & Card Reader Card Reader
6	JJ-RC-C1	Radio
7	NIR-50	Photocells
8	LS-1	Magnetic loop detector device for traffic monitoring
A		Connect the power supply to an approved omnipolar switch with an opening dis- tance of the contacts of at least 0.1" (not supplied). The connection to the mains must be made via an independent channel, separated from the connections to command and safety devices.



Note: The given operating and performance features can only be guaranteed with the use Platinum accessories and safety devices.

PRODUCT DIMENSIONS



CONCRETE BASE AND PREPARATION





Prepare a 24"x17.5" rectangle area, and dig 17" deep into the ground. Then pour the concrete mixer into the hole and make sure this concrete block is at least 6" above the ground (do not forget to place the conduit pipe first before the concrete mixer).

ARM ASSEMBLY



Cut the length of the bar to L=PL+10.82". Install the bar as shown in the figure.

11

STRUT SELECTION



		PL	
PL (Feet)	0000000	000000	0000000
4-5.5	SPGY	/	/
5.5-6.5	/	SPGY	/
6.5-8.2	SPGN	/	/
8.2-9.9	/	SPGN	/
9.8-11.50	/	/	SPGN
11.50-14.80	SPRD38	/	/
14.80-17	/	SPRD38	/
17-19	/	SPRD51	/

PL (Feet)	000000	1000000	000000
6.0-6.5	/	/	SPGY
6.5-8.2	SPGN	/	/
8.2-9.5	/	SPGN	/
9.5-10.5	/	/	/
10.5-13.4	SPRD38	/	SPGN
13.4-15.7	/	/ SPRD38	/
15.7-19	/	SPRD51	/

PICTORIALS FOR REFERENCE



STRUT MOUNTING



BALANCING THE ARM SECTION

1	Using the nut(D) above the spring on the strut, compress the spring until the arm is balanced at an angle between 5° to 30° above the floor (when in this position, the arm will be stationary and angles upwards)(see page 12)
	Warning: Using the table from page 12 as reference, determined the measurement A for the strut that is being used, make sure that measurement A is obtained when compressing the spring on the strut.
2	Lastly, tighten the locked nut(B) (see page 12)
	Warning: never use the force of the motor to support the weight of the arm. Always use the balancing spring to support the arm.

LIMIT SWITCH ADJUSTMENTS FOR THE OPENING AND CLOSING POSITION



- Adjust the opening and closing position of the bar using the special screws [A].
- Adjust the opening and closing limit switches using the cams [C] so that the switches are activated approx. 0.1". before the mechanical stop [B]

ELECTRICAL POWER SOURCE CONNECTION (TO CIRCUIT-BOARD)

WARNING – Verify the installation first to make sure everything is correct before connecting the power cable to the board. USE MIN. 14 AWG WIRE. FOLLOW ALL LOCAL ELECTRICAL CODES.

To help protect the equipment from lightning and power surges and to protect persons from shock hazard the Operator must be grounded. The earth ground rod must be located within 3 feet from the gate operator. Use the proper type earth ground rod for your local area. The ground wire must be a single, whole piece of wire. Never splice two wires for the ground wire. If you cut the ground wire too short, break it, or destroy its integrity, replace it with a single wire length. Prevent unnecessary turns or loops in ground wires.

The gate operator and the battery charger require a single phase AC line to operate.

- 1. Turn off the breaker for the circuit you are using.
- 2. Select the proper voltage on the power board.
- 3. Connect the incoming power wires to the proper terminals.
- 4. Turn on the breaker and check that AC ON and CHARGE LED are lit.





The power receptacle has been left unconnected till the installer decides what voltage to use. Connect to 120VAC only

BARRIER



WARNING – To reduce the risk of severe injury or death to person, please follow these instructions:

ALARM RESET SWITCH INSTALLATION: (UL 325 standard requirement)

An alarm shall signal upon two sequential activations of an entrapment protection device, where the first activation is either a Type A or B2 device and the second activation is a Type A device. The alarm shall signal for a minimum of 5 min or until a renewed manual input from an integral control or a permanently mounted control (such as a Stop button) located in the line-of-sight of the gate has been entered. An audio alarm is not required for Classes III and IV.

To reset the alarm the Stop command can be given in two different ways.

- 1- The Built in Stop switch on the control board.
- 2- The External Stop button in the line-of-sight of the gate, away from moving parts of the gate and out of reach of children.





ELECTRICAL CIRCUIT BOARD PICTORIAL LAYOUT



OPEN COMMANDS



COMMANDS		
1	FIRE	Open barrier whenever fire emergency happens
2	STK	Strike open
3	SEQ	Sequential open input (used in barrier /main(Slide/Swing) gate) gate configuration to sequentially open the barrier and main(Slide/Swing) gate)

DETECTION LOOP



To decrease the possibility of vehicle entrapment on the gate. Vehicle loop detectors need to be installed. The edge sensor and the photo-electric beam can be used for secondary entrapment protection on every installation to prevent pedestrian or animal entrapment. These accessories must be UL 325 compliant devices.

RADIO RECEIVER

Radio Receiver

Need to verify the proper connections before connecting the Radio Receiver. The maximum voltage that the control board / battery can provide is about 28V for external accessories. If there is an electrical shot in the power to the accessories, the control board will protect itself by shutting down and will remain shut down until the short is fixed.



LIGHT AND FLASH CONTROL



- 1. FL_NO/COM/FL_NC: This provides NO/NC relay connections for controlling flash lights. The flash is active when the barrier is operating (enable jumper is plugged).
- 2. L_NO/COM/L_NC: This provides NO/NC relay connections for turn on light when barrier is operating or flash when timer is running.

PRIMARY/SECONDARY





GUARD STATION



This will control the gate operator to Open, Stop, and Close the gate. The switches for Open and Close must be normally open type. The switch for Stop must be normally close type. They all can be using the same common ground. The control switch box should be within sight of the gate, out of reach of children, and away from moving parts of the gate.

If no guard station or STOP switch is installed, a jumper must be inserted between "STOP(NC)" and "GND" pins.

OPTIONAL: SOLAR POWER DIAGRAM



OPTIONAL: FLASH ENABLE JUMPER



Short JP4 pin to make the LED light flash.

ALARM



FUNCTIONALITY:

1. built in internal alarm, that automatically sounds off when something is wrong

FRONT DOOR LOCK(ULOK)



FUNCTIONALITY:

1. on/off red light to indicate on the electrical circuit board whether the barrier arm is lock or not

2. In addition, is associated with the Front Cover Lock component and its functionality

OPEN, STOP, CLOSE (COMMAND ON CIRCUIT BOARD)



Using Open, Stop, Close onboard button to Open, Stop, or Close the arm respectively.

MANUAL RELEASE



In the event of a fault or power failure, insert the key, turn it counterclockwise and completely open the hatch. Manually open the barrier.

To put in use the barrier again, close the hatch, turn the key clockwise and remove the key.

WARNING: do not release with the springs under tension without rod. Perform rod locking and release with the motor switched off. Do not enter the operating range of the rod. When the barier is released, the rod may move of its own accord. When the hatch is closed but the key is still horizontal, the release micro switch is open and all the operations are stopped. To deactivate the barrier, the power supply must be removed and the batteries disconnected (if present).

ARM SPEED



Used to Adjust Barrier Up and Down Speeds

OBSTRUCTION/INSTANT REVERSING SENSOR



The Obstruction Sensor needs to be adjusted to compensate for the installation and gate weight. The overload adjustment is provided to set the gate sensitivity.

- a) If the gate reverses by itself or stops in midcycle, it is too sensitive.
- b) If the gate hits an object and does not reverse or stop, it is not sensitive enough.

c) Clockwise increases sensitivity, counterclockwise decreases sensitivity. Test and adjust for proper reversing pressure



Perform the following operations and checks every 6 months according to intensity of use of the automation. Disconnect the power supply connection and batteries (if present):

- Clean and oil the levers and check nuts and screws are well tightened.
- Clean and grease the joint and the spring-post as shown in the figure.
- Check the electrical connections.
- Check that the manual release is operating correctly.
- Check that the rod is balanced correctly. Check the value of the capacity of the motor condenser.

Reconnect the power supply connection and batteries (if present):

- Check that the limit switches are working correctly:
- Check that obstacle detection is operation correctly.
- Check that all control and safety functions are working correctly.

OPERATION

The Barrier Arm operation can be synchronized with an existing Gate Operator. Important: The Platinum Access Barrier Operator only works with Platinum Access Slide or Swing Gate Operators.

- 1. The Barrier Arm receives an open command from your access control
- 2. The Barrier Arm remains closed and sends an "open signal" to the synchronized operator.
- 3. The Barrier Arm will open once the synchronized operator reaches its open limit.



CONNECTIONS



Swing/Slide Gate Open Limit Switch



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