Maintenance MANUAL

Parking Barrier

Version : 1.0
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1. Introduction

Thank you for purchasing the Parking Barrier product manufactured by ZKTeco. This product is manufactured in strict accordance with quality control standards. To protect the device from component abrasion and to ensure long-term stable operation, it is recommended to perform periodic maintenance on the device.

2. Housing Cleaning and Interior Dust Removal

Check for dirt such as smudges and stains on the parking barrier housing on a periodic basis. Use cleaning agents to remove dirt, wipe the surface with soft cloth. If, accidentally some scratches occur, ask a qualified repair service to smooth out the patterns.

Note: **It is recommended that the housing must be cleaned once every two weeks.**

3. Periodic Maintenance of Internal Components

Usage Times (Million)	Mechanism					Electronic		
	Motor	Reducer	Position sensor	Spring	Boom	Wiring	Master board	Capacitance
0.5+	○	○	○	○	○	○	○	○
1.0+	○	○	○	○	○	○	○	○
1.5+	○	○	○	○	○	○	○	○
2.0+	○	○	○	○	○	○	○	○
2.5+	○	○	○	○	○	○	○	○
3.0+	●	●	○	○	○	○	○	○
Remarks: ● indicates Replace; ○ indicates Check.								

@0.5Million Maintenance record

• Maintenance	In good condition after checking (√)			Clean after checking (C)	
	Fasten after checking (F)			Replace after checking (R)	
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
spring		boom		Wiring	
Master board		capacitance			

@1.0Million Maintenance record

• Maintenance	In good condition after checking (√)			Clean after checking (C)	
	Fasten after checking (F)			Replace after checking (R)	
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
Spring		Boom		Wiring	
Master board		Capacitance			

@ 1.5Million Maintenance record

• Maintenance	In good condition after checking (√)			Clean after checking (C)	
	Fasten after checking (F)			Replace after checking (R)	
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
Spring		Boom		Wiring	
Master board		Capacitance			

@ 2.0Million Maintenance record

• Maintenance	In good condition after checking (√)		Clean after checking (C)		
	Fasten after checking (F)		Replace after checking (R)		
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
Spring		Boom		Wiring	
Master board		Capacitance			

@ 2.5Million Maintenance record

• Maintenance	In good condition after checking (√)		Clean after checking (C)		
	Fasten after checking (F)		Replace after checking (R)		
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
Spring		Boom		Wiring	
Master board		Capacitance			

@ 3.0Million Maintenance record

• Maintenance	In good condition after checking (√)		Clean after checking (C)		
	Fasten after checking (F)		Replace after checking (R)		
• Mandatory items	Housing cleaning and interior dust removal				
	Mechanism oiling				
• Check items					
Motor		Reducer		Position sensor	
Spring		Boom		Wiring	
Master board		Capacitance			

4. Appendix (Method and Tool)

Caution: Make sure the power supply is disconnected before starting maintenance work on the parking barrier.

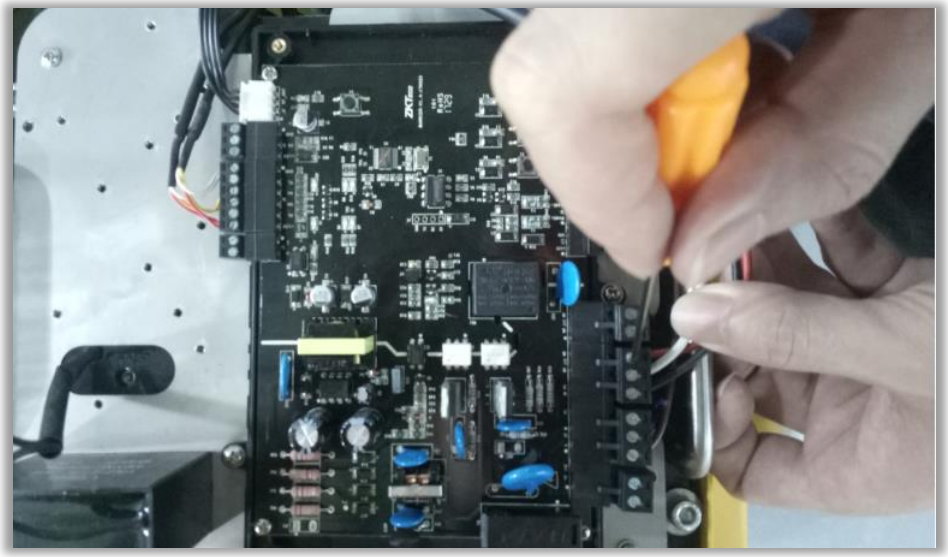
4.1 Housing Maintenance and Interior Dust Removal

- Use cleaning cloth soaked with industrial alcohol to wipe the housing. Then apply a layer of rust preventive oil.
- If the screw is loose, tighten it clockwise, and use an Allen key to fasten the set screws.
- Remove dust from the internal PCB.

4.2 Wire Checking

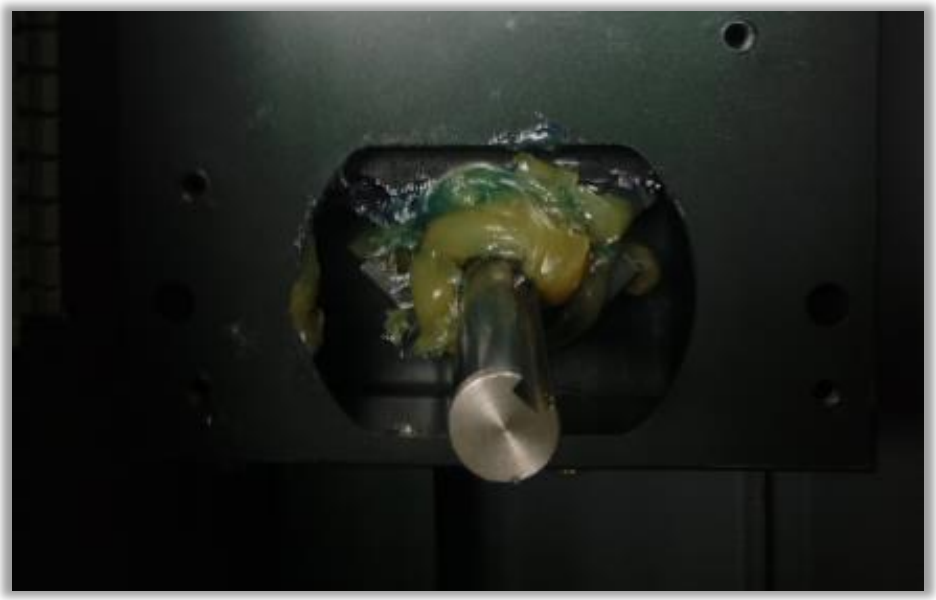
- Check that all terminal posts are in good firm contact and free from exposed copper. Re-insert loose terminal posts if any. If exposed copper exists on a conducting wire, remove the connector from the PCB, use a flat-head screwdriver to loosen the screws on the terminal, re-insert and tighten the wire into the terminal, and then re-insert the

terminal.



4.3 Mechanism Lubrication

- Remove the reducer and motor.
- Add enough lubricating oil to cover the rotating shaft.

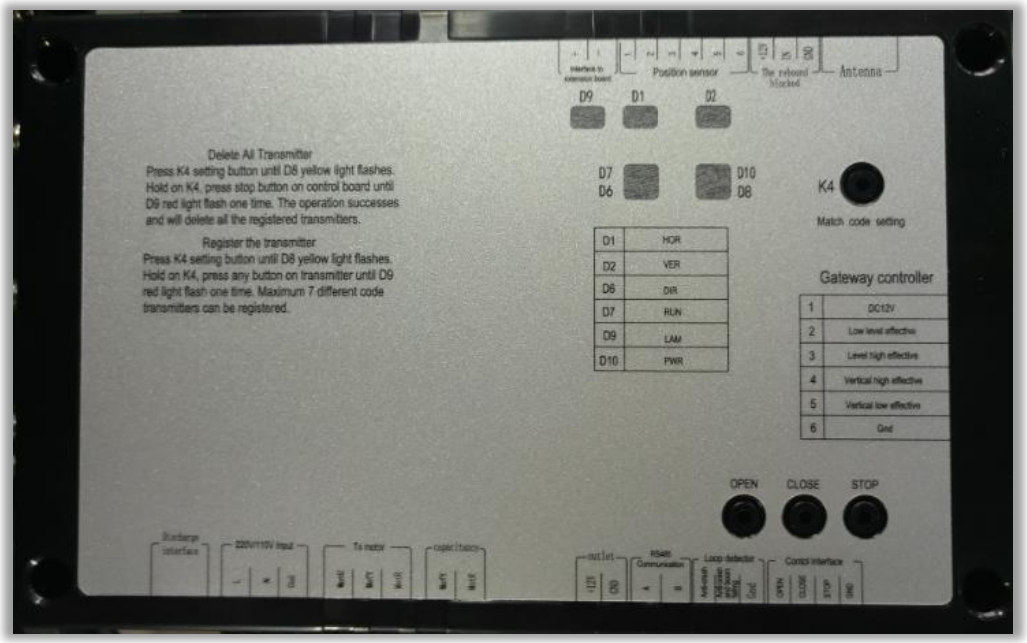


4.4 Replacing the Master Board

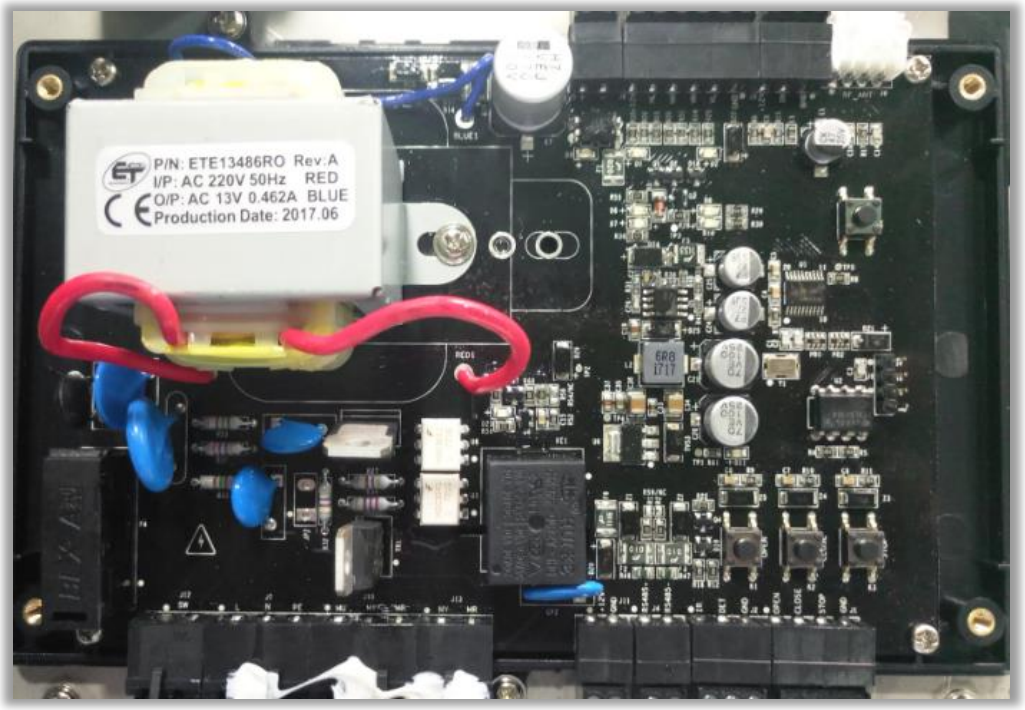
- Unplug all the terminal of the master board.
- Loosen and remove the four screws from the master board cover and take out the

cover.

- Loosen and remove the four screws and remove the master board.

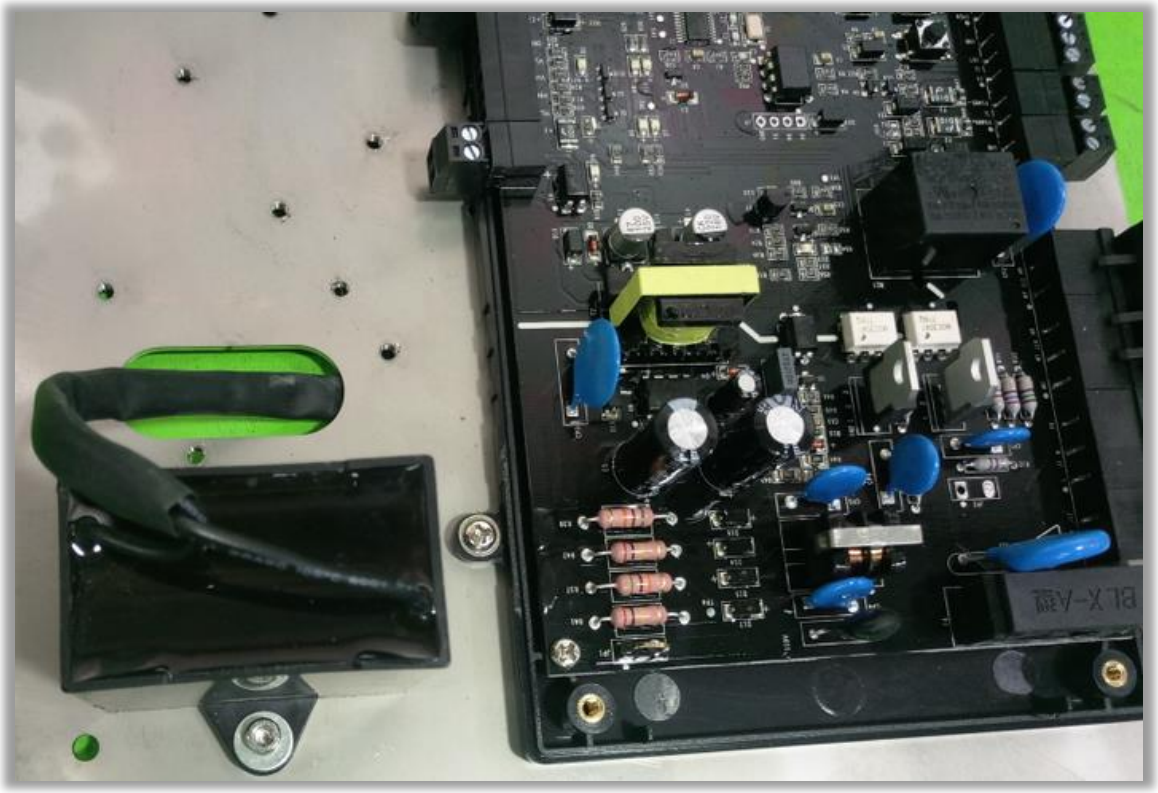


- Replace the master board with the new one on the device, apply screw glue to the screw, fasten the screws, and re-insert all the terminals.



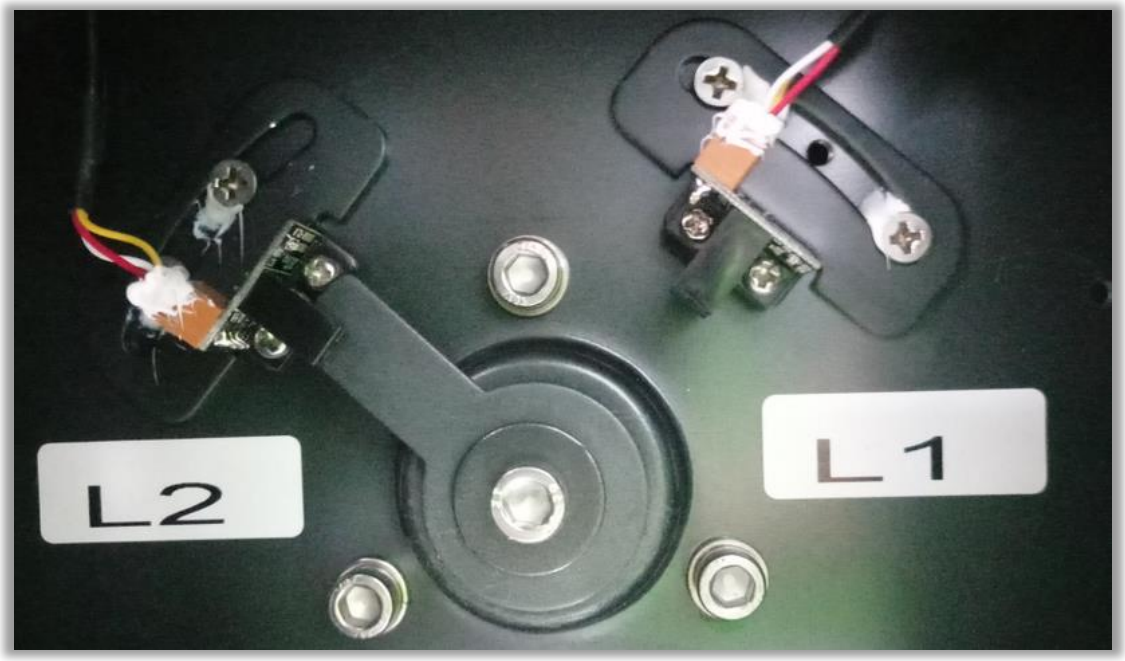
4.5 Replacing the Capacitance

- Use the key to open the top cover of the parking barrier.
- Unplug the terminal of the master board connecting to capacitance and loosen the fix screws of the capacitance to remove it.
- Replace the capacitance with the new one on the top of the parking barrier.



4.6 Position Sensor Replacement

- Use the key to open the side door on the parking barrier.
- Loosen and remove the four fix screws of the cover and remove it.
- Unplug the terminal of the position sensor on the master board.
- Loosen and remove the two fix screws of the position sensor and replace with the new one.



4.7 Boom Replacement

- Take off the waterproof cover using your hand.
- Use the Allen key to loosen and remove the fix bolt from the boom and take out the boom. It is important to note, that another side of the boom need to be hold by someone.
- Install the new boom.

4.8 Reducer/Motor replacement

- Before replacing the reducer/motor, the boom must be in the vertical state (the barrier open).
- Use the key to open the side door of the parking barrier.
- Use the Circlip pliers to take off the circlip, then, loosen and remove the four fix screws of the reducer and take out the reducer and motor.
- Take out the shaft from the reducer (only in case of reducer replacement), the reducer is connected with the motor, so this step is needed to separate the reducer and motor, loosen and remove the four screws through which the reducer and motor are fixed, remove reducer/motor and install the new one.

5. Maintenance Tool Kit

Allen key set	Multi-blade screwdriver
Scissors	Lubricating oil
Multimeter	Industrial alcohol
Anaerobic adhesives	Cleaning cloth
Rust preventive oil	