

# Maintenance MANUAL

## Swing Barrier

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Version : 1.0

Date : December, 2017

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## 1. Introduction

Thank you for purchasing the Swing 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 swing barrier housing on a periodic basis. Use cleaning agents to remove dirt, wipe the surface with soft cloth, and then apply a layer of rust preventive oil. 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<br>(Million)                         | Motor | Belt | Arm | Infrared sensor | Master board | Wiring | 24 V power supply | Indicator light |
|--------------------------------------------------|-------|------|-----|-----------------|--------------|--------|-------------------|-----------------|
| 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                     |                 |                            |        |  |
|                   | Interior dust removal                |                 |                            |        |  |
| ● Check items     |                                      |                 |                            |        |  |
| Motor             |                                      | Belt            |                            | Arm    |  |
| Infrared sensor   |                                      | Master board    |                            | Wiring |  |
| 24 V power supply |                                      | Indicator light |                            |        |  |

### @ 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                     |                            |
|                   | Interior dust removal                |                            |
| ● Check items     |                                      |                            |
| Motor             | Belt                                 | Arm                        |
| Infrared sensor   | Master board                         | Wiring                     |
| 24 V power supply | Indicator light                      |                            |

### @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                     |                 |                            |        |  |
|                   | Interior dust removal                |                 |                            |        |  |
| ● Check items     |                                      |                 |                            |        |  |
| Motor             |                                      | Belt            |                            | Arm    |  |
| Infrared sensor   |                                      | Master board    |                            | Wiring |  |
| 24 V power supply |                                      | Indicator light |                            |        |  |

### @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                     |                 |                            |        |
|                   | Interior dust removal                |                 |                            |        |
| ● Check items     |                                      |                 |                            |        |
| Motor             |                                      | Belt            |                            | Arm    |
| Infrared sensor   |                                      | Master board    |                            | Wiring |
| 24 V power supply |                                      | Indicator light |                            |        |

### @ 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                     |                            |
|                   | Interior dust removal                |                            |
| ● Check items     |                                      |                            |
| Motor             |                                      | Arm                        |
| Infrared sensor   |                                      | Wiring                     |
| 24 V power supply |                                      |                            |
|                   | Belt                                 |                            |
|                   | Master board                         |                            |
|                   | Indicator light                      |                            |

### @ 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                     |                 |                            |        |  |
|                   | Interior dust removal                |                 |                            |        |  |
| ● Check items     |                                      |                 |                            |        |  |
| Motor             |                                      | Belt            |                            | Arm    |  |
| Infrared sensor   |                                      | Master board    |                            | Wiring |  |
| 24 V power supply |                                      | Indicator light |                            |        |  |

## 4. Appendix (Method and Tool)

**Caution:** Make sure the power supply is disconnected before starting maintenance work on the flap 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.
- Remove dust from the internal PCB.



### 4.2 Wire Checking

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



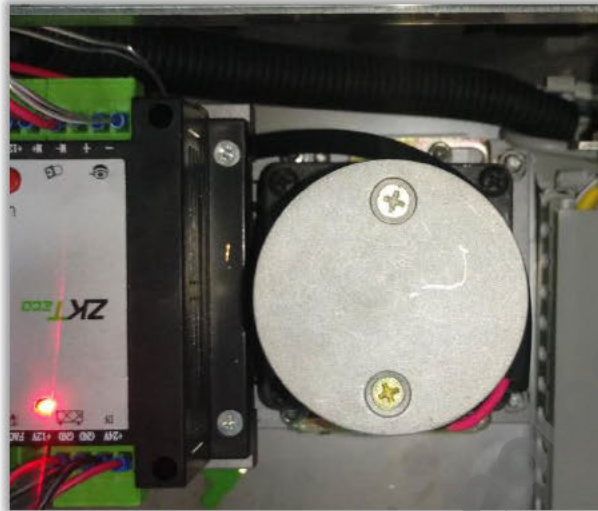
### 4.3 Master/Slave Board Replacement

- Remove wiring terminals from the master or slave board, mark the ports (to ensure correct wiring of the new board), loosen the four screws, take off the PCB which needs to be replaced, install the new board, fasten the screws, and then reconnect the wiring terminals.



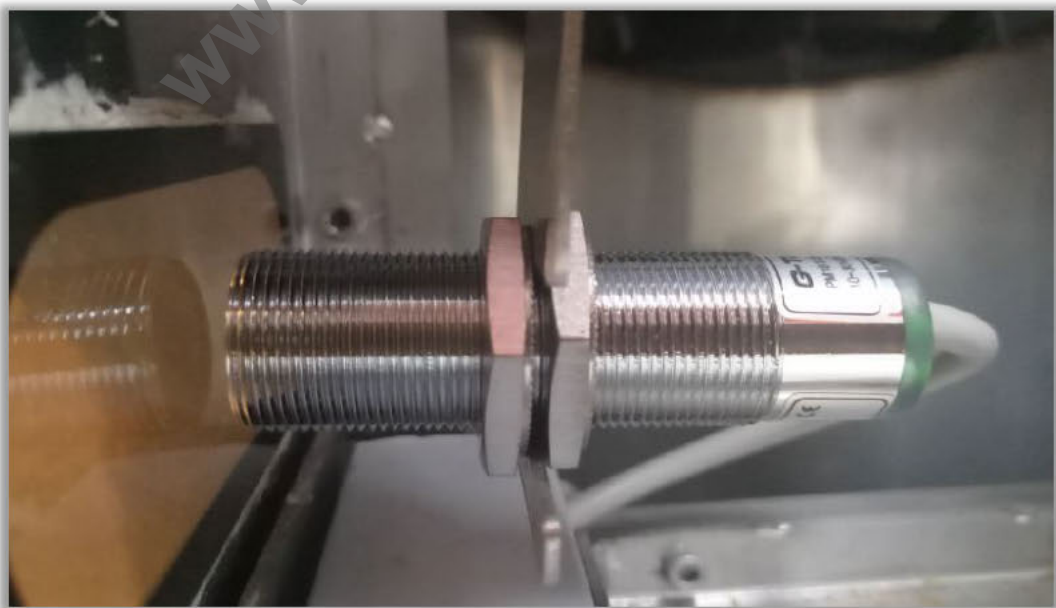
## 4.4 Motor Replacement

- Loosen the four screws from the motor connection block and remove the motor.
- Install the new motor.



## 4.5 Infrared Sensor Checking and Replacement

- Check the detection indicator on the infrared sensor. If the indicator is red without blockage or does not light on in red with blockage, replace the infrared sensor.
- Loosen the screw pair that fixes the infrared sensor, then loosen the front screw, and then take off the infrared sensor. Remove the infrared sensor along with the cable trough and install a new one.



## 4.6 Arm Replacement

- Move up the screw cap from the top of arm and remove the fixed screw.
- Remove the bolt from the below of the arm, then remove the arm.
- Replace with a new arm and screw the top and the below of arm.



## 4.7 Indicator Light Replacement

- Unplug the terminals.
- Loosen the four screws from the indicator light and install a new one.



## 4.8 Belt replacement

- Remove the arm, as shown in [Chapter 4.7](#)
- Unplug the terminal of the master board and take out the whole core.
- Remove the motor and the fix block of the core.
- Replace the belt with a new one and reassemble the core.



## 5. Maintenance Tool Kit

|                                                                                                                |                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <p>Allen key set</p>        | <p>Multi-blade screwdriver</p>  |
| <p>Scissors</p>             | <p>Rust preventive oil</p>     |
| <p>Multimeter</p>           | <p>Industrial alcohol</p>      |
| <p>Anaerobic adhesives</p>  | <p>Cleaning cloth</p>           |