

COSBER



USER MANUAL

TRUCK Play Detector

COSBER C-PD Series

CONTENT

| | | |
|-------|--|----|
| 1 | Statement..... | 3 |
| 1.1 | Important notes | 3 |
| 1.2 | Security tips..... | 3 |
| 1.3 | Description of safety sign | 4 |
| 1.4 | Tips for product setup | 4 |
| 2 | Product description | 5 |
| 2.1 | Use as specified. | 5 |
| 2.2 | Main components..... | 5 |
| 2.2.1 | Test plates..... | 5 |
| 2.2.2 | Control unit | 6 |
| 2.2.3 | Remote control..... | 6 |
| 3 | Preparation for usage | 7 |
| 3.1 | Environmental conditions..... | 7 |
| 3.2 | Preparation before the first usage | 7 |
| 3.3 | Preparation for use | 8 |
| 4 | Test procedure..... | 9 |
| 5 | Code matching of remote control..... | 11 |
| 5.1 | Part identification | 11 |
| 5.2 | Description of communication address | 11 |
| 5.3 | Instructions for matching code | 12 |
| 6 | Maintenance..... | 14 |
| 6.1 | Maintenance cycle | 14 |
| 6.2 | Safety test..... | 14 |
| 6.3 | Grease points..... | 14 |
| 6.4 | Shutdown processing..... | 15 |

7 Certification 16

8 Notes 17

1 Statement

1.1 Important notes

- First, thank you for purchasing this product.
- This manual is a necessary accompaniment to the product. To use the equipment more effectively, users should read the instructions carefully before installation and reference it properly for further use and maintenance.
- The product specifications and information mentioned in the instructions are only for reference only, content may be updated regularly, and without further notice.
- This product should only be used for its specifically designed purposes and should never be used for other purposes; the manufacturer is not responsible for any damage caused due to the improper use of this product.
- Please strictly abide by the “guidelines” and “notice” during operation when using this product and remember that regular maintenance for the equipment is required.
- This product should only be operated and used by specially trained and qualified personnel.
- Any personnel not belonging to our company are prohibited from performing any disassembly or modification of the product or from using it for other purposes beyond the detection function of the device itself without permission.
- In cases of product damage caused by human factors or force majeure (such as earthquakes and floods, etc.), the user shall take timely and effective remedial measures and inform the company as soon as possible.


1.2 Security tips




You must read the instructions carefully before starting, debugging, connecting, or operating the device, and always pay close attention to these instructions.



NOTIFY USERS OR NEARBY PERSONS OF ANY DANGEROUS INFORMATION, AND ALWAYS INFORM OF ANY DANGEROUS CONSEQUENCES AND PREVENTIVE MEASURES.

WARNING!

| Sign | Possibility of occurrence | Risk severity |
|---|---------------------------|---------------------------|
|  DANGER! | Direct danger | Personal injury and death |

| | | |
|--|-------------------------|--------------------------------------|
|  WARNING! | <p>Danger</p> | <p>Personal injury</p> |
|  NOTICE! | <p>Important notice</p> | <p>Minor injury</p> |
|  ATTENTION! | <p>Note</p> | <p>General notice or information</p> |

1.3 Description of safety sign

Be careful of electric shock.



1.4 Tips for product setup

All necessary configuration settings and sensor calibrations should only be conducted by COSBER technical service personnel or by COSBER approved partners.

2 Product description

2.1 Use as specified.



WARNING!

- IF THIS PRODUCT IS NOT USED AS SPECIFIED, SAFE OPERATION OF EQUIPMENT CANNOT BE GUARANTEED.
- YOU MUST ALWAYS USE THE EQUIPMENT ACCORDING TO THE PROVISIONS OF THE PLAY DETECTOR.
- THE EQUIPMENT SHOULD NEVER BE CHANGED OR MODIFIED WITHOUT PERMISSION.
- PAY ATTENTION TO THE PROVISIONS OF THE PLAY DETECTOR BY THE CORRESPONDING VEHICLE MANUFACTURERS (MANUAL).

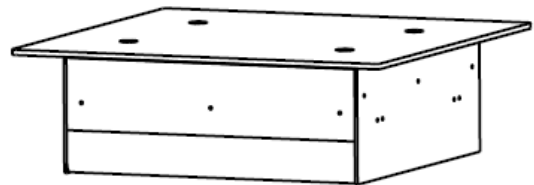
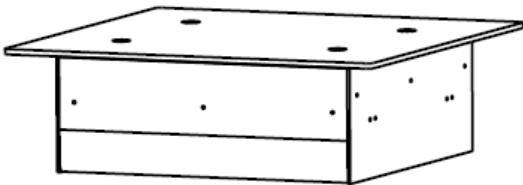
For further purposes, please:

- Read and comply with the product specifications.
- Comply with the technical specification data from the play detector and all related components.
- Pay attention to security tips when performing all operations.
- Operate the play detector correctly.
- Use the correct method of operation.
- Conduct all maintenance work in a timely manner.
- Any operations not specified by this instruction are incorrect use of the product and are likely to cause injury and property damage. The manufacturer shall bear no responsibility for any losses arising therefrom.

2.2 Main components

2.2.1 Test plates

Test plates including 4 hydraulic cylinders per test plate allow to move the plate (optionally) in 8 directions.

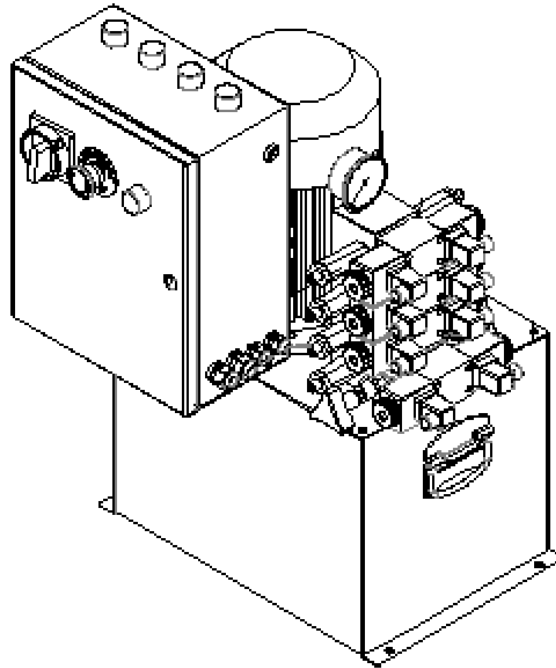


| Product model | C-PD52 | C-PD72 | C-PD82 |
|----------------------------------|--|---------|---------|
| Maximum axle weight | 13000kg | 18000kg | 20000kg |
| Dimensions of test plate (L x W) | 750 x 750 mm 900 x 750mm (optionally) | | |
| Plate movement | 100 mm | | |
| Test speed | 100 mm/s | | |

| | |
|--|-----------|
| Max. thrust per side | 30000 N |
| Equipment weight | 600 kg |
| Radiation sound pressure level at the operating position | ≤70 dB(A) |

2.2.2 Control unit

Control unit including hydraulic unit and control box with build in receiver for remote control.



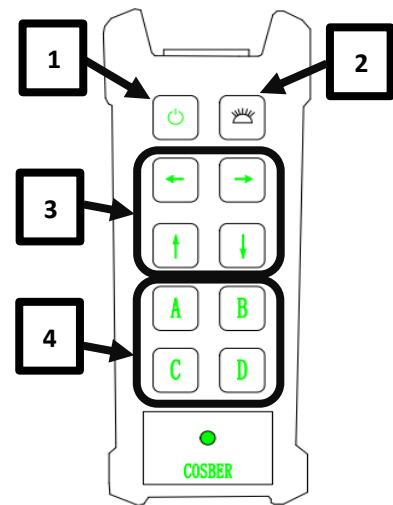
| Hydraulic unit | |
|-------------------------------|---|
| Operating ambient temperature | 0~40 ° C |
| Motor power | 4 kW |
| Max. hydraulic pressure | 120 bars |
| Hydraulic oil | 30L (46# anti-wear hydraulic oil) |
| Power supply | AC 3-phase×400V + N + PE /50Hz AC 3-phase×230V + N + PE /60Hz (optional) |
| Rated current | 400V – 8.1A 230V - 14A (optional) |
| Dimensions (L×W×H) | 550×510×700 mm |
| Equipment weight | 75 kg |

2.2.3 Remote control



Remote control for operating the test directions with integrated headlamp.

- 1) Power button:
Click the power button to wake up the remote control. The display light turns green before other buttons can be used. Click the Power button again to put the remote control in sleep-mode.
- 2) Light button: Click the button to turn on the headlamp. Click the key again to turn off the light.
- 3) Action buttons [←] [→] [↑] [↓]: Press the action button to move, release the action button to stop.
- 4) Mode buttons: [A] [B] [C] [D]



3 Preparation for usage

3.1 Environmental conditions

| Environmental conditions | |
|-------------------------------|------------------------|
| Operating ambient temperature | 0~40 ° C |
| Storage ambient temperature | -10~50 ° C |
| Operating ambient humidity | ≤90% (no condensation) |

3.2 Preparation before the first usage

- Before starting the device for the first time, check and make sure that all the installations have been finished correctly.
- Before checking the wiring, make sure that the main power switch is disconnected.
- Check if all the devices and accessories to be installed are complete.

- Check if acceptable circuit breakers are available on the installation site.
- Check if all devices have been installed correctly.
- Check if the motor power cord of the Play detector has been properly connected to the terminal of the control cabinet.
- Check if the signal line of the play detector has been properly connected to the main control board of the control cabinet.
- Check if the main power cord of the control cabinet has been properly connected to the circuit breaker.
- Check if the grounding wire is connected.

3.3 Preparation for use

- Safety precautions
 - No oil or water on plates
 - Proper lighting
 - No damage on safety sign
- Get knowledge about the working environment (pit lift, safety requirements, etc.)
- Correct vehicle positioning
 - Drive vehicle onto test plates.
 - Ensure correct alignment of wheels.
 - Apply handbrake and shift into neutral (manual transmission) or park (automatic transmission)
- Visual inspection before the test
 - Check for visible wear, damage, or leaking components.

4 Test procedure

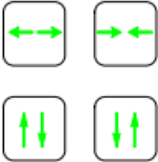
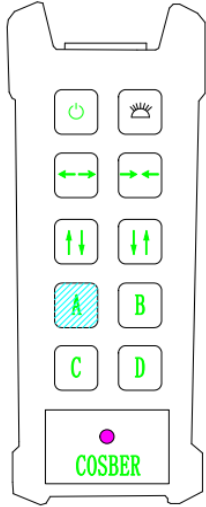
BEST PRACTICE TIPS

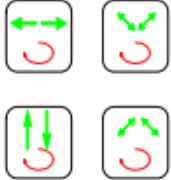
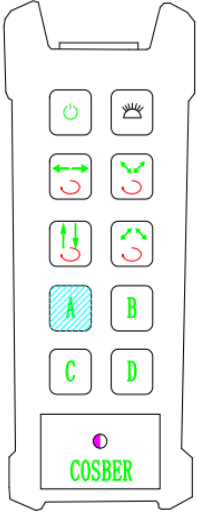
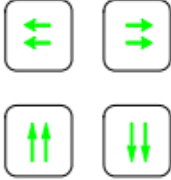
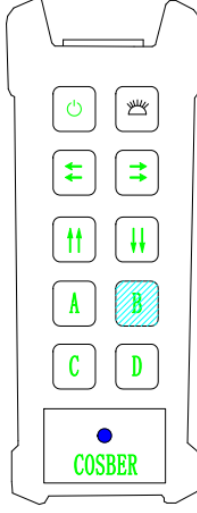
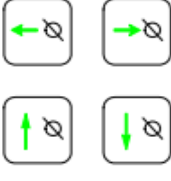
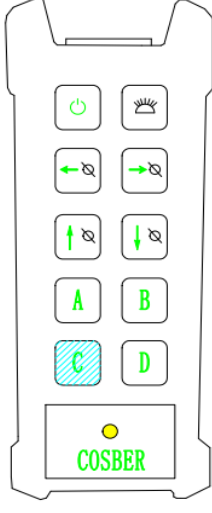


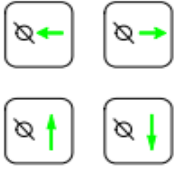
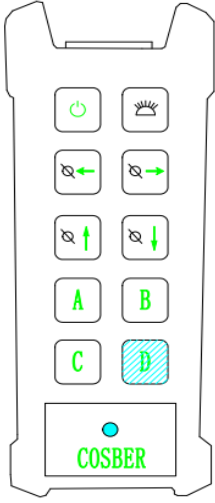
NOTICE!

- **ALWAYS TEST BOTH FRONT WHEELS INDIVIDUALLY**
- **LET A SECOND PERSON OBSERVE FROM BELOW IF POSSIBLE**
- **TEST UNDER THE SAME CONDITIONS EVERY TIME**
- **CLEAN THE TEST PLATES REGULARLY**

- Press any button to start the motor of the hydraulic unit, by pressing any action button the movement will begin.
- If no button presses within 15 seconds, the motor will stop automatically.
- If no button presses within 6 seconds, the left and right plates automatically restore to their original position (center point).

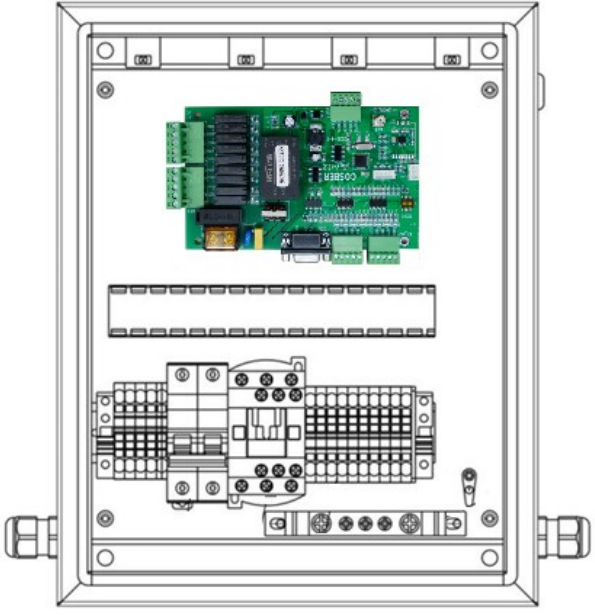

| | | |
|---|---|---|
|  | <p>Mode button [A]: Press the [A] button one time, the display light turns magenta.</p> <p>Movement mode: Two plates move in opposite direction at same time, when press the action button.</p> |  |
|---|---|---|

| | | |
|---|--|---|
|  | <p>Mode button [A]: Press the [A] button continuously, the display light turns magenta and flashes.</p> <p>Movement mode: Two plates move continuously in opposite direction at same time, when press the action button.</p> |  |
|  | <p>Mode button [B]: Press the [B] button one time, the display light turns blue.</p> <p>Movement mode: Two plates move in the same direction at same time, when press the action button.</p> |  |
|  | <p>Mode button [C]: Press the [C] button one time, the display light turns yellow.</p> <p>Movement mode: Only left plates move, when press the action button.</p> |  |

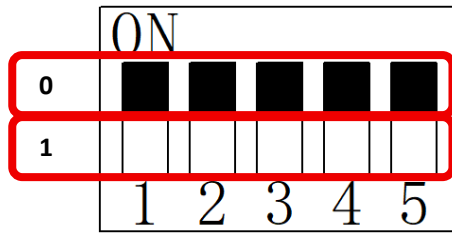
| | | |
|---|--|---|
|  | <ul style="list-style-type: none"> Mode button [D]: Press the [D] button one time, the display light turns cyan. Movement mode: Only right plates move, when press the action button. |  |
|---|--|---|

5 Code matching of remote control.

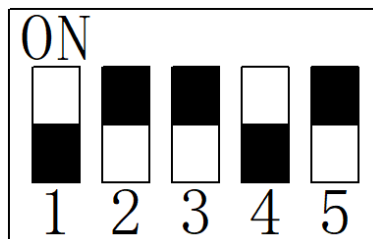
5.1 Part identification

| | |
|---|---|
| <p>Receiver board</p> <p>It is located inside the hydraulic system control cabinet, as shown in the figure.</p> | <p>Transmitter board</p> <p>It is located inside the remote control as shown in the figure.</p> |
|  |  |

5.2 Description of communication address



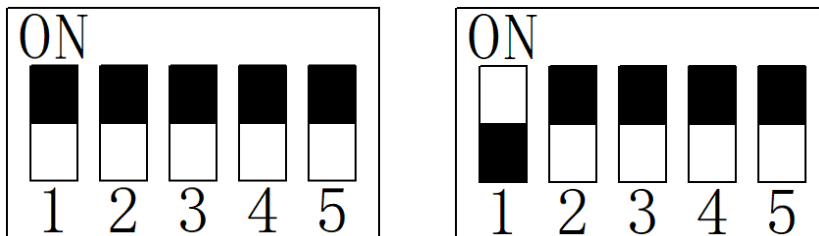
- When the switch is the ON side, it means the dial "0"; otherwise, it's the dial "1".
- The default factory address is 00000.
- Attached you find an example for the code: 10010:



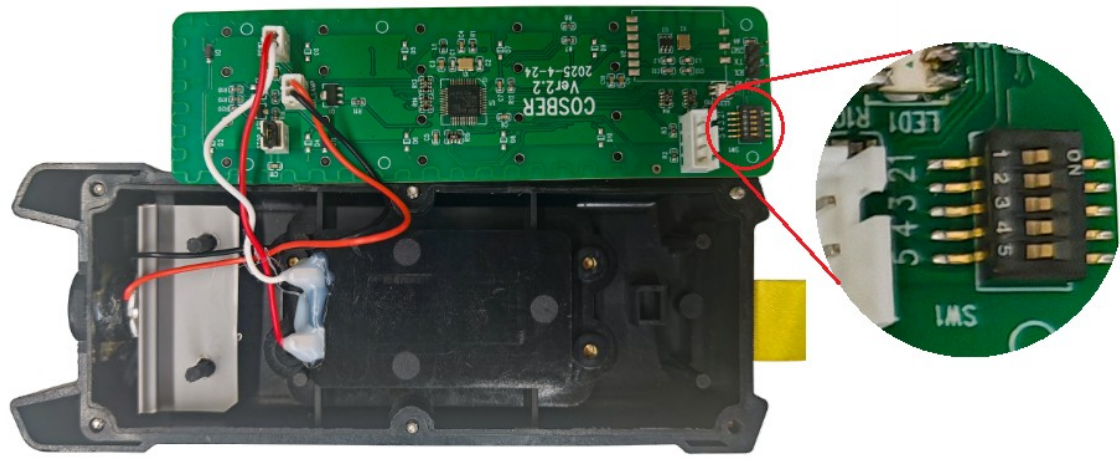
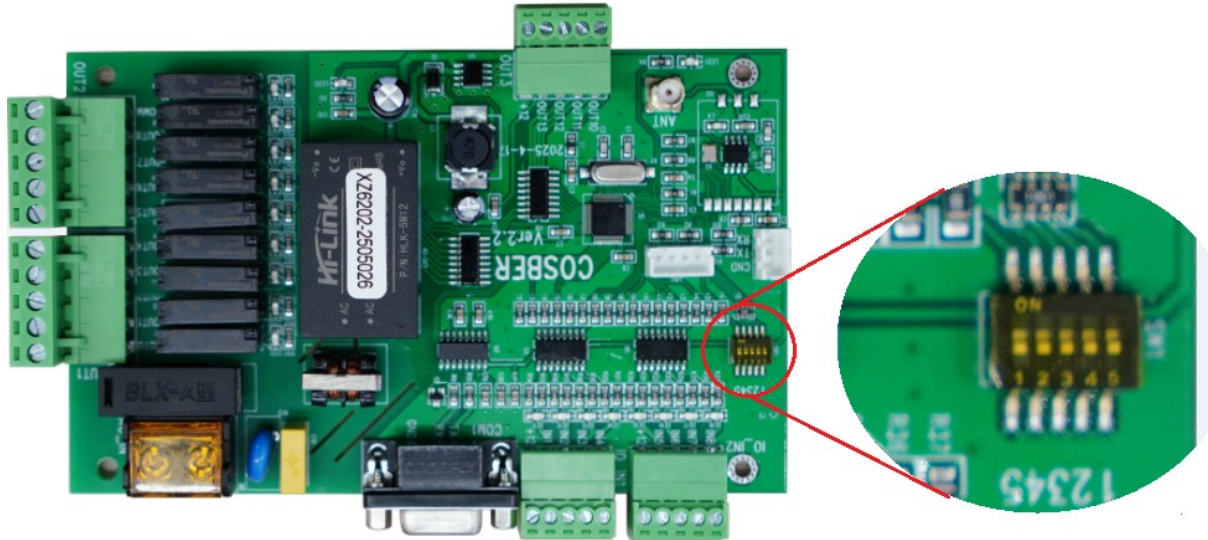
- The first four switches are used for communication address. That means there are a total of 16 addresses possible: 0000 to 1111.
- The fifth switch is used for identifying the used equipment with defined function
 0 = Play Detector
 1 = Brake Tester

5.3 Instructions for matching code

- When the transmitter board and receiver board have the same code, it indicates that they are used in pairs.
- The default factory address is 00000. Customers can unlock the code based on their actual situation to allocate the equipment address.
- For example, if two Vehicle Play Detectors are used in the inspection station, please set the two remote control pull codes to different values. For example, set to 00000 and 10000.



- Locate the positions of the remote control and the pull switch of the receiving control board, as shown in the figure.



6 Maintenance



NOTICE!

ALL REPAIRS SHOULD BE CONDUCTED BY COSBERS TECHNICAL SERVICE STAFF OR PARTNER APPROVED BY COSBER. NEVER DISASSEMBLE THE EQUIPMENT WITHOUT PERMISSION.

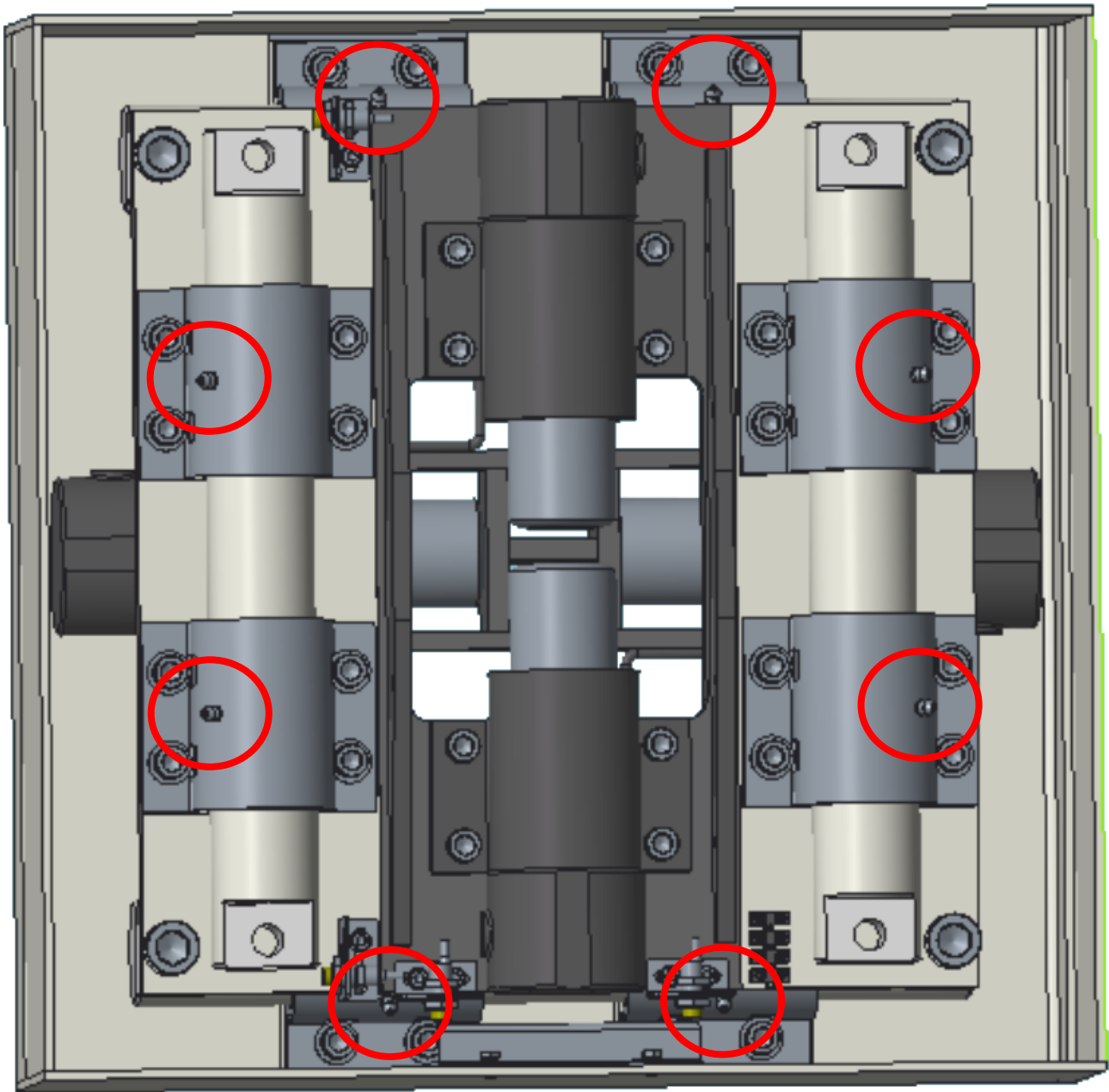
6.1 Maintenance cycle

| Maintenance work | Cycle |
|--|-----------|
| Visual inspection of equipment operation | Daily |
| Clean any dirt and debris | Monthly |
| Check all movements of play detector | Monthly |
| Lubricate the guides with a grease gun (Remove the test plates) | Quarterly |
| Check the guide rod screws for tightness and tighten if necessary (Remove the test plates) | |
| Check the oil level and refill if necessary | Quarterly |
| Check for oil leakage | Quarterly |
| Check aggregate for unnormal noise | Quarterly |
| Check oil for dirty | 6 months |
| Check the connections of all electrical components in the control cabinet | Annually |
| Check all bolts and re-tight if necessary | Annually |
| General approval of damaged parts | Annually |
| Check all wires for damage | Annually |
| Change hydraulic oil | 2 Years |
| Change oil lines | 6 Years |

6.2 Safety test

- The maintenance interval specified by the manufacturer is 12 (twelve) months. This maintenance interval is based on standard workshop use. If the device/system is used more frequently or under more severe operating conditions (e.g., outdoors), the interval must be shortened accordingly.
- Specially authorized and trained personnel may only perform maintenance work. This includes authorized, trained specialists from the manufacturer, authorized dealers, and the respective service partners.
- Failure to comply will avoid the manufacturer's warranty.

6.3 Grease points



6.4 Shutdown processing

- When the equipment needs to be shut down for an extended period, turn off the main power, lubricate all the parts that require lubrication and cover the control cabinet to prevent dust. Please set the prompt poster on the main power switch.
- Prevent any improper bearing or impact on the brake tester. Set up appropriate warning signs to prevent damage to people and property.

7 Certification



Safenet Limited

Denford Garage, Denford, Kettering, Northants., NN14 4EQ, U.K.

Tel: +44 1832 732 174 e-mail: office@safenet.co.uk Website: www.safenet.co.uk

EC Examination Certificate

Shenzhen COSBER Industrial Co., Ltd.

10th Fl, F1 Building, TCL Intl Science E-Park, 1001 Zhongshanyuan Road, Nanshan, Shenzhen, P R China

Has had a range of Vehicle Play Detector Testers examined to the Machinery Directive 2006/42/EC, as amended and the Low Voltage Directive 2014/35/EU.

With reference to model **KJX-18**

Manufactured by:

Foshan Nanhai Yanbu Cosber Electrical & Mechanical Co., Ltd.

No. 1, Yanbian Industrial Zone, Suiyan Road, Nanhai District, Foshan, China

1. The technical file contains all the relevant information.
2. Having verified that the appropriate tests have been conducted.
 - 2.1. The standards and transposed standards have been applied correctly.
 - 2.2. The example representing series production of the item, complies with the essential health and safety requirements of the Directive 2006/42/EC, as amended.
 - 2.3. The technical file contains all the information to include the following models in the certification KJX-18, KJX-3, KJX-10, KJX-13, KJX-15, C-PD1*, C-PD3*, C-PD5*, C-PD7*, KJX-20 and C-PD8 (*: Hydraulic station power, 0: 4kW/Bearing plate not returned, 2: 4kW/Bearing plate returned, A: 2.2kW, B: 1.5kW).
 - 2.4. Compliance with EN 60204-1:2018 gives compliance with the Low Voltage Directive 2014/35/EU.

Certificate Number: 8072280519 version 2

Date: 13/06/2019

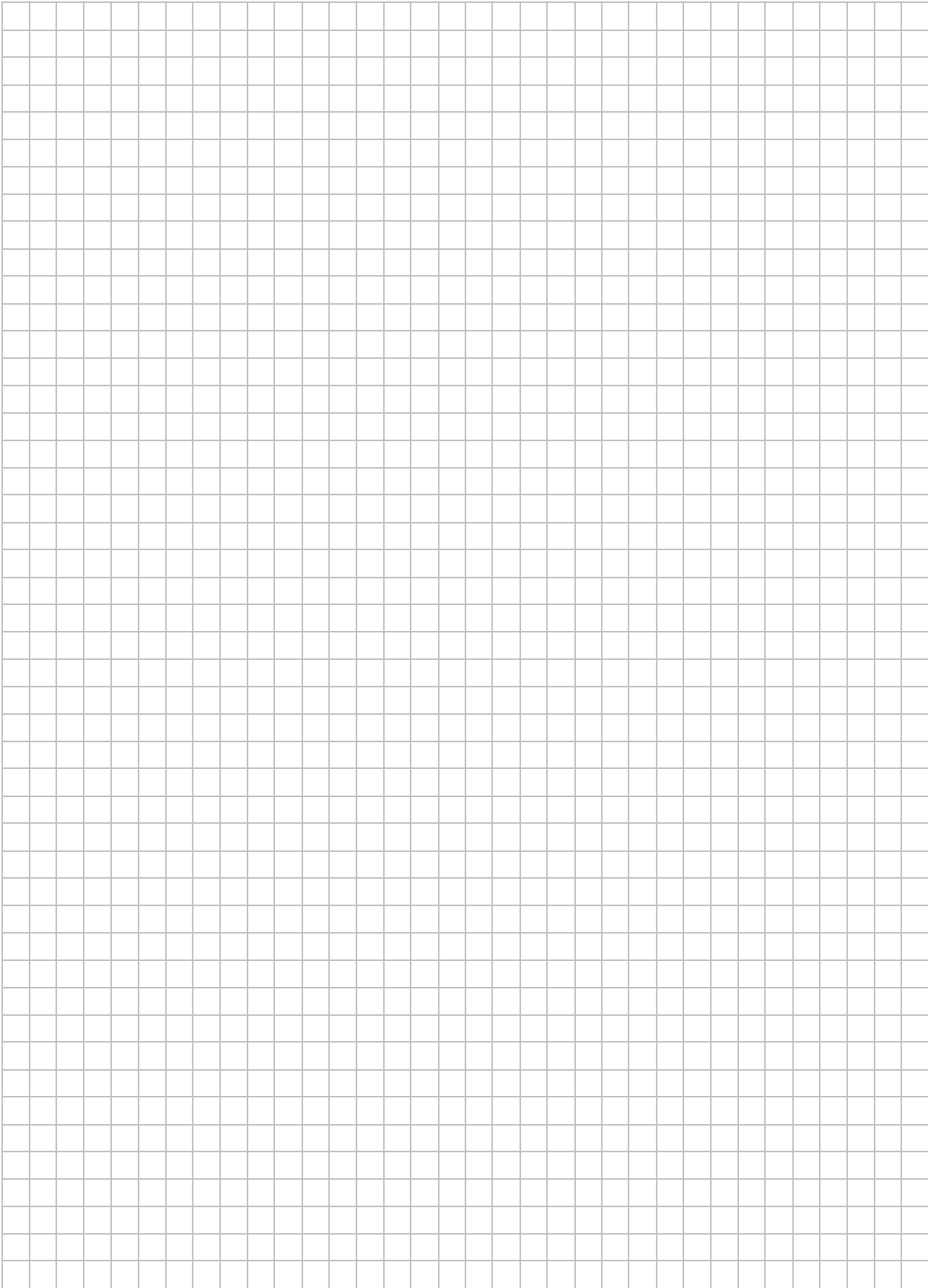
Signed for Safenet Limited



Peter McNicol
Technical Manager



This Document remains the property of Safenet Ltd and will be returned to them if so requested.
Safenet will review the continued compliance of the machinery on a 5 yearly cycle to check for changes in the state of the art.



COSBER



Cosber GmbH
Lise-Meitner-Str. 3
82152 Krailling
GERMANY

Tel.: +49 (0) 89 262 07 66-00
Fax: +49 (0) 89 262 07 66-60
e-Mail: info@cosber.de
Web: www.cosber.de

