

OPERATING MANUAL

Original manual - Version A - 03 November 2014

Wheels ezW10 and ezW300



Mounting of the wheel on the application

- Position the wheel on the spindle and make sure that the hexagon zone of the wheel is correctly inserted in that of the application.



- Check that the application on which the wheel is going to be mounted has a spindle with a diameter of 16 mm, of which the length corresponds to the thickness of the wheel, for each wheel.
- Check the presence of a hexagon anti-rotation zone (XC 18 steel or equivalent hardness).



- Check that the tiller head is switched off: All lights are off.
- Inspect the general condition of the wheel and check for damage.
- Check the condition of the wheel: Press the ON/OFF zone on the wheel label and check that the "OK" light is green.



All mechanical drawings that could serve for the installation of ez-Wheel products are available on request.

[All the accessories mentioned are available in the ez-Wheel catalogue.](#)

The wheels and the tiller heads are designed to work together according to the configuration described in the configuration sheet delivered with the equipment.

- Please refer to wireless interface ez44IN/W and tiller head ezRTH/W operating and user manuals.



INSTALLATION OF THE EZ-WHEEL PRODUCT

The range of autonomous wheels, ezW10 and ezW300, enables powerful electric drive to be installed quickly and easily.

ezW10 and ezW300 wheels are controlled by:

- the interface ezR44IN via a wireless communication system
- (or) wireless commands with integrated interface

- Please refer to wireless interface ez44IN/W and tiller head ezRTH/W operating and user manuals.

This operating manual contains the instructions to be followed for installation of ezW10 and ezW300 wheels.



CHARACTERISTICS OF THE EZ-WHEEL PRODUCT

Do not use ez-Wheel products for other purposes or in other conditions than those mentioned in the technical documentation. Read and make sure you have understood the manual before using ez-Wheel products. Observe all the warnings and usage instructions in this manual. Keep this manual for reference throughout the life of the product. In the event of loss, you can obtain a copy of this manual from the ez-Wheel Customer Department. If the product is transferred to another owner, make sure that the manual is transferred as well. The characteristics, descriptions, and illustrations in this document are applicable at the date of publication. ez-

Wheel reserves the right to make any modifications and revisions to this document. Product users obtain their own information on these modifications.

The ezMCS/H suspended fork serves for mounting ezW300 autonomous wheels on applications requiring a wheel load of less than 100 Kg.

This operating manual contains the instructions to be followed for the installation, use and maintenance of the fork.

All the mechanical drawings for the installation of ez-Wheel products are supplied to order.

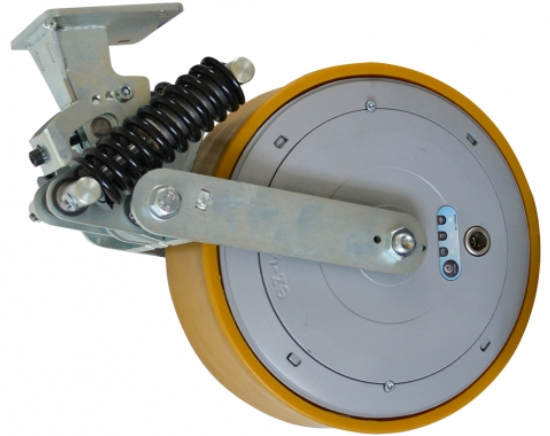
All the accessories mentioned are available in the ez-Wheel catalogue.

Three levels of loading on the wheel are available on this product:

- Position 1: Low load position, approximately 50 kg
- Position 2: Medium load position, approximately 75 kg
- Position 3: High load position, approximately 100 kg

It is possible to release the tension.

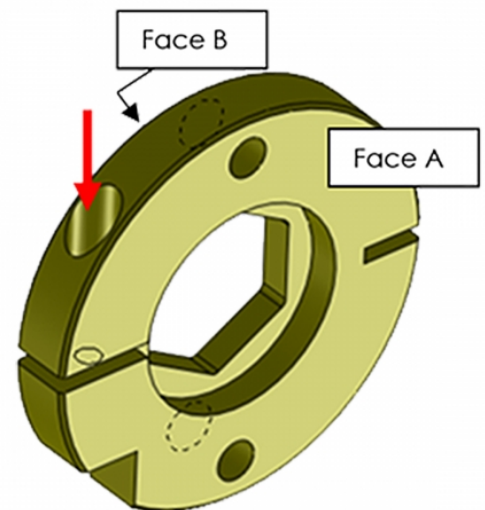
- Lock the wheel to the spindle with a screw on the side opposite the hexagon zone (or both sides of the spindle if the application is fitted with a fork or a yoke)
- Check the holding of the wheel before putting the tiller head into operation.
- Repeat this operation for each wheel if the system has several wheels.



The optional ezMAR anti-rotation washer accessory can be used.

- Remove the M3 screw from the ezMAR washer with a 2.5 mm Allen key.
- Position the hexagon zone of the ezMAR clamp on the wheel spindle. It is possible to use a mallet for this operation but the wheel spindle must not be damaged in any circumstances. Face A of the clamp should be against the wheel.
- Tighten the M3 side screw with an Allen key to ensure that the clamp is locked around the hexagon zone.

CHC M3x12 SCREW
2.5 mm Allen key
Mallet

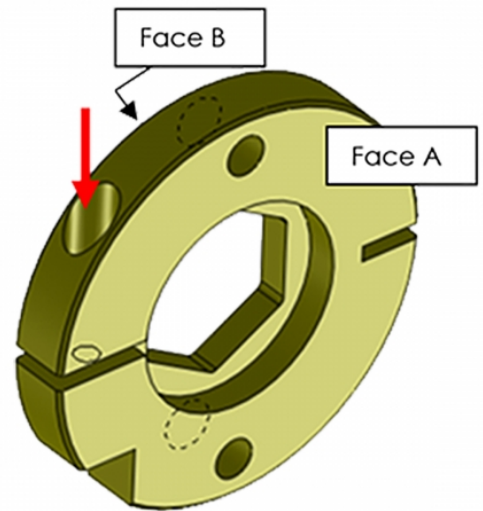


Installation of the suspended fork

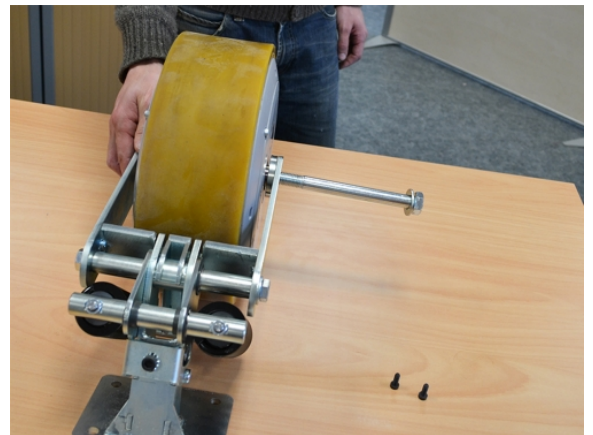
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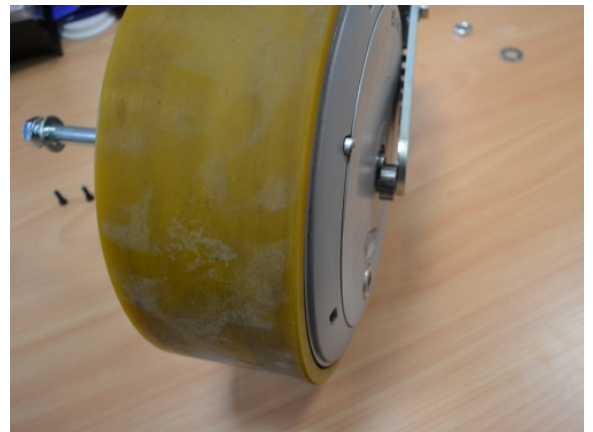
CHC M3x12 SCREW
2.5 mm Allen key

Mallet**Fitting the wheel to the suspended fork**

- Position the wheel, according to its desired direction of operation and insert the M16 x 180 bolt through the hollow spindle of the wheel.

M16 x180 CHC screw**16 mm open ended spanner**

- Insert the holding ring between the fork and the wheel on the opposite side from the anti-rotation washer.



- Fix the M16 screw with the M16 nut supplied.

M16 x 180 CHC screw**M16 nut****16 mm open ended spanner**

- Fix the anti-rotation washer to the fork with the two M5 screws.

M5 x 12 CHC screw**5 mm Allen key****Adjusting the tension**Releasing the pressure system

- Unscrew the A tension screw until the tensioner and the B stop screws are no longer in contact.

M8 x 70 CHC screw
6mm Allen key

Positioning and tightening the adjustment stops

- Position the 2 stop screws in the desired position
- Screw up and tighten the 2 stop screws

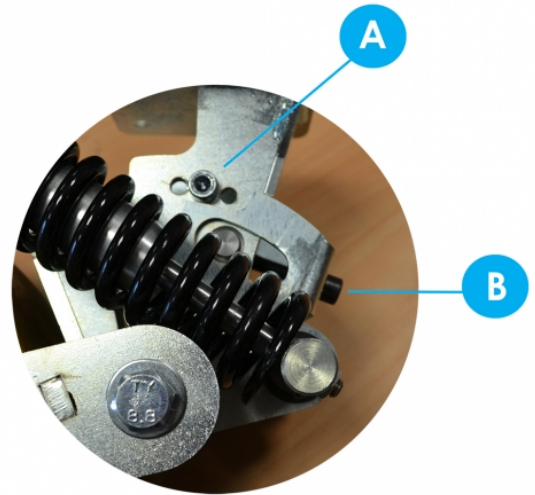
Tightening torque 16 N.m
M8 x 12 CHC screw
6mm Allen key

Tensioning and tightening the pressure system

- Screw up and tighten the pressure system tensioning screw

Tightening torque 8 N.m
M8 x 70 CHC screw

6mm Allen key



Position of the stop screw according to the load applied to the wheel.

- Position 1: Low load position, approximately 50 kg
- Position 2: Medium load position, approximately 75 kg
- Position 3: High load position, approximately 100 kg

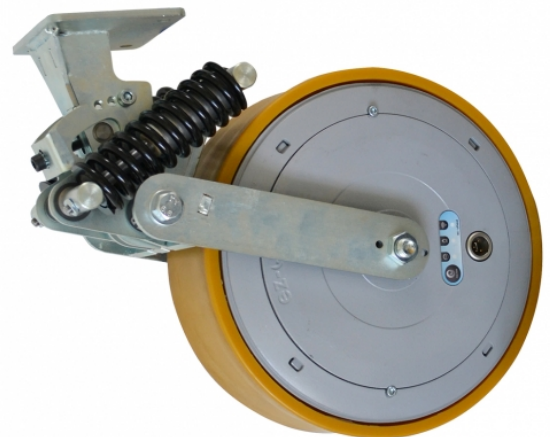
For the majority of applications, position 1 is sufficient to ensure good grip between the wheel and the floor.

Depending on the nature and the condition of the floor and the total load to be moved, it may be preferable to increase the load on the wheel by using positions 2 or 3.



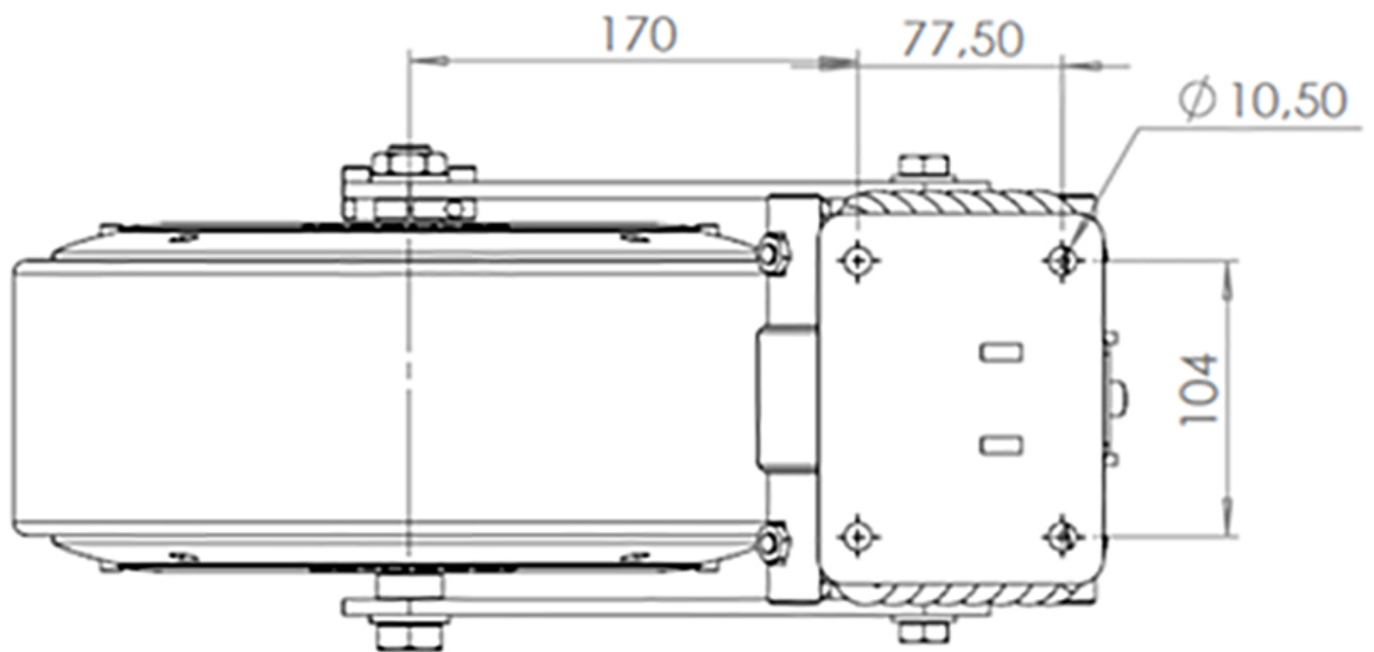
- Screw the pre-assembled unit to the machine
- Refer to the drawing of the fork top plate for the positions of the 4 holding screws.
- Test the complete system and check that the electric drive of the wheel functions properly without skidding on the floor.

The horizontal driving force provided by the wheel is 35 kg maximum. If despite the force provided by the suspended fork skidding is observed, perform a new tensioning operation increasing the load by one level until correct driving is obtained.

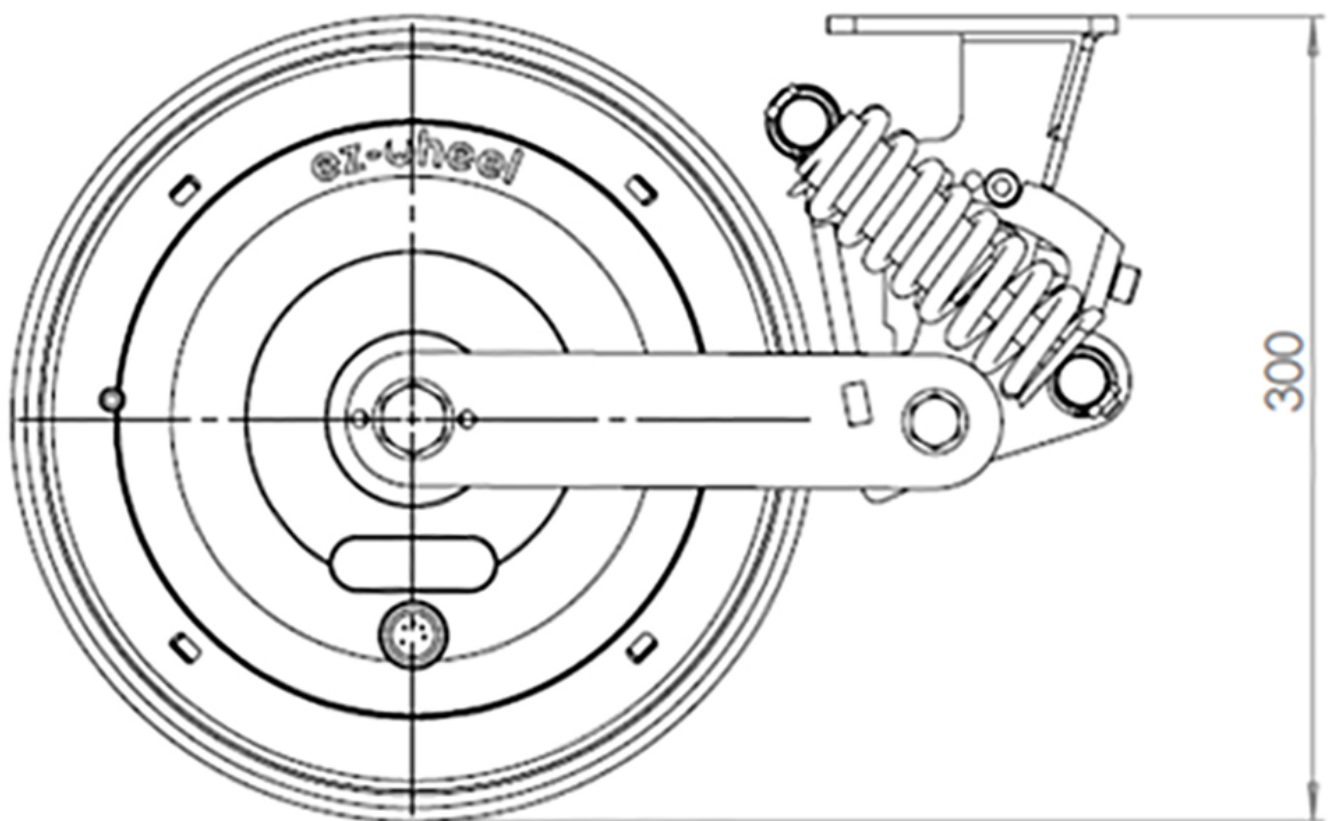


Fitting the fork assembly to the machine

Top plate drawing



Drawing of the mounting height under the chassis of the application



VERSIONS WITH TYRES: CHANGING A TYRE

To replace a tyre and to check the type of tyre to be used, see the wheel datasheet. All tyres should be fitted with inner tubes.

- Remove the batteries from the wireless interface box
- Deflate the tyre completely



- Remove the 4 screws holding the wheel rim, situated on the circumference of the wheel next to the valve

M5x25 BHC screws
3mm Allen key

- Remove the two locking screws on the valve side.

M5x18 CHC screws
4 mm Allen key

The metal tyre retaining rim then has some play.

- Pivot the retaining rim by hand



- Remove the retaining rim



- Remove the tyre and the inner tube



The solid tyre cannot be replaced. In the event of wear preventing the wheel being used, contact the ez-Wheel Customer Department.

VERSIONS WITH SOLID TYRES

- Fit the two locking screws and check that they are properly tightened

M5x18 CHC screws
4 mm Allen key

- Refit the 4 rim holding screws and check that they are properly tightened

M5x25 BHC screws
3 mm Allen key

- Inflate the tyre

DO NOT INFLATE THE TYRE UNLESS THE LOCKING SCREWS ARE PROPERLY IN PLACE AND TIGHTENED ON THE HOLDING RIM. DO NOT OVERINFLATE. THE INFLATION PRESSURE SHOULD BE BETWEEN 1.5 AND 2 BAR.



- Change the tyre and the inner tube if necessary

It is easier to fit the new tyre if the inner tube is pre-inflated. Be careful about the direction of the newly fitted tyre: The fitting direction should correspond with the direction of movement of the application.

- Reposition the retaining rim on the hub
- Pivot it to put it into its initial position



PRECAUTIONS FOR USE RELATIVE TO THE WHEEL

Always use a suitable charger.
Do not submerge the wheel.
Do not open the wheel.
Do not expose to a heat source.
Do not expose to fire.
Do not insert pieces of metal into the connector.
The product must under no circumstances be modified without authorisation from ez-Wheel.
Do not try to change the technical performance of the wheel.
The product should not be subjected to use beyond the technical performance specified by ez-Wheel.
Inappropriate use results in cancellation of the warranty.
Opening of the wheel results in cancellation of the warranty.



SAFETY RULES IN RELATION TO THE BATTERIES

The user must not open the wheel under any circumstances and does not have access to the batteries.

The wheel contains Ni-MH batteries, which are subject to restrictions covering transport and the safety of the user. All information and regulations concerning these batteries can be supplied on request.



CUSTOMER DEPARTMENT CONTACT

If a product appears to be faulty, contact the ez-Wheel customer department. (Email address: sav@ez-wheel.com). The warranty conditions are available with the general sales conditions on the website www.ez-wheel.com

DECLARATION OF INCORPORATION

Déclaration d'incorporation

En qualité de fabricant,

ez-Wheel SAS
Rue Jean Doucet
16470 Saint Michel
France

déclare que le produit ezW10/ezW300 est une quasi-machine au sens de la directive 2006/42/CE relative aux machines.

Ce produit est destiné à être incorporé dans une application et ne pourra en aucun cas être mis en fonction avant que l'application n'ait été déclarée conforme aux dispositions de la directive 2006/42/CE.

Fait à St Michel, le 29/04/2011.

Jérôme Pénigaud, Président

A handwritten signature in blue ink, appearing to be 'JP', is located below the name Jérôme Pénigaud.

Declaration of incorporation

In our quality as manufacturer, we

ez-Wheel SAS
Rue Jean Doucet
16470 Saint Michel
France

declare that the ezW10/ezW300 product is a partly completed machine within the meaning of the machinery directive 2006/42/EC.

This product is intended to be incorporated into an application, and cannot under any circumstances be put into operation before this application has been declared compliant to the requirements of directive 2006/42/EC.

Issued in St Michel, on 29/04/2011.

Jérôme Pénigaud, Chairman



DECLARATION OF CE CONFORMITY

Déclaration de conformité CE

En qualité de fabricant,

ez-Wheel SAS
Rue Jean Doucet
16470 Saint Michel
France



déclare que le produit ezW10/ezW300 est conforme :

aux dispositions réglementaires définies par la directive 1999/5/CE concernant les équipements hertziens et les équipements terminaux de télécommunications et la reconnaissance mutuelle de leur conformité.

aux normes harmonisées :

EN 301 489 - 17 v 2.1.1

EN 61 000 - 4-2

EN 61 000 - 4-3

EN 55 022

EN 300 328 v 1.7.1

à la norme non harmonisée :

EN 15 194 - §4.1, 4.2.1, 4.2.2, 4.2.3

Fait à St Michel, le 29/04/2011.

Jérôme Pénigaud, Président

Declaration of CE conformity

In our quality as manufacturer, we

ez-Wheel SAS
Rue Jean Doucet
16470 Saint Michel
France



declare that the ezW10 product complies:

with the regulatory requirements defined by directive 1999/5/EC covering radio equipment and telecommunications terminal equipment and mutual recognition of their compliance.

with harmonised standards:

EN 301 489 - 17 v 2.1.1

EN 61 000 - 4-2

EN 61 000 - 4-3

EN 55 022

EN 300 328 v 1.7.1

with non-harmonised standards:

EN 15 194 - §4.1, 4.2.1, 4.2.2, 4.2.3

Issued in St Michel, 29/04/2011

Jérôme Pénigaud, Chairman

In order to optimise the electricity consumption of your wheel and not damage the integrity of the batteries, we have included a mode which totally deactivates your system beyond one week of non-use.



IMPORTANT - READ BEFORE USING

For any system remaining inactive for at least this duration, before any use of your application involving rotation of the wheels, **even without electrical assistance**, it is essential that you put the system back into operation **by pressing the ON/OFF zone** on the wheel label.

- If your system has more than one wheel, **perform the operation on all the wheels**.
- Always charge the wheel before a prolonged shutdown.
- Never leave an unused wheel totally discharged.

