GROUP CYCLE

SERVICE & MAINTENANCE MANUAL

REV. 6.4

TECHNOGYM®
The Wellness Company

The information contained in this manual is intended for QUALIFIED TECHNICIANS who have completed a specific TECHNOGYM training course and are authorized to perform machine start-up and adjustment procedures as well as extraordinary maintenance or repairs which require a thorough knowledge of the machine, its operation, its safety devices and working procedures.

CAREFULLY READ THE INFORMATION CONTAINED IN THIS MANUAL BEFORE PERFORMING ANY MAINTENANCE PROCEDURES ON THE MACHINE

DANGEROUS VOLTAGES EVEN WITH THE MACHINE OFF

NOTE:

The information contained in this document is subject to change without notice.

Technogym does not guarantee this documentation in any way. Technogym shall not be held responsible for any errors contained in this manual and declines all liability for accidents or damages resulting from the supply, characteristics or use of this manual.

Contents

1 GENERAL NOTICES

1.1 INTRODUCTION

This document is reserved for Technogym Service technicians, and is intended to provide authorized personnel with the necessary information to correctly carry out repairs and maintenance. A thorough knowledge of the technical information contained in this manual is essential for completing the professional training of the operator.

In order to facilitate consultation, the paragraphs are accompanied by schematic drawings which illustrate the procedure being described.

This manual contains notices and symbols which have a specific meanings:

WARNING: non observance may result in accident or injury.

CAUTION: non observance may cause damage to the machine.

Information about the operation in progress.

Observation about the operation in progress.

1.2 RECOMMENDATIONS

Technogym recommends the following steps for planning repair procedures:

- Carefully evaluate the customer's description of the machine malfunction and ask all the necessary questions to clarify the symptoms of the problem.
- Clearly diagnose the causes of the problem. This manual provides the fundamental theoretical basis, which must then be integrated by personal experience and attendance at the training courses periodically offered by Technogym.
- Rationally plan the repair procedure so as to minimize the downtime necessary for procuring spare parts, preparing tools, etc.
- Access the component to be repaired, avoiding any unnecessary operations. In this regard it will be useful to refer to the disassembly sequence described in this manual.

1.3 GENERAL RULES FOR REPAIR PROCEDURES

1. Always mark any parts or positions which may be confused with each other at the time of reassembly.

2. Use original Technogym spare parts and lubricants of the recommended brands.

3. Use special tools where specified.

4. Consult the Technical Newsletters, which may contain more up-to-date information on adjustments and maintenance than those contained in this manual.

5. Before starting the repair procedure, make sure that the recommended tools are available and in good condition.

6. For the procedures described in this manual, use only the specified tools.

The tool sizes quoted in this manual are expressed in mm.

2 TECHNICAL SPECIFICATIONS

2.1 PRODUCT CODES

The machine codes take into account all the possible variants and options available for the products. The machine code, which does not include the *Serial Number*, consists of 14 alphanumeric characters arranged as follows:

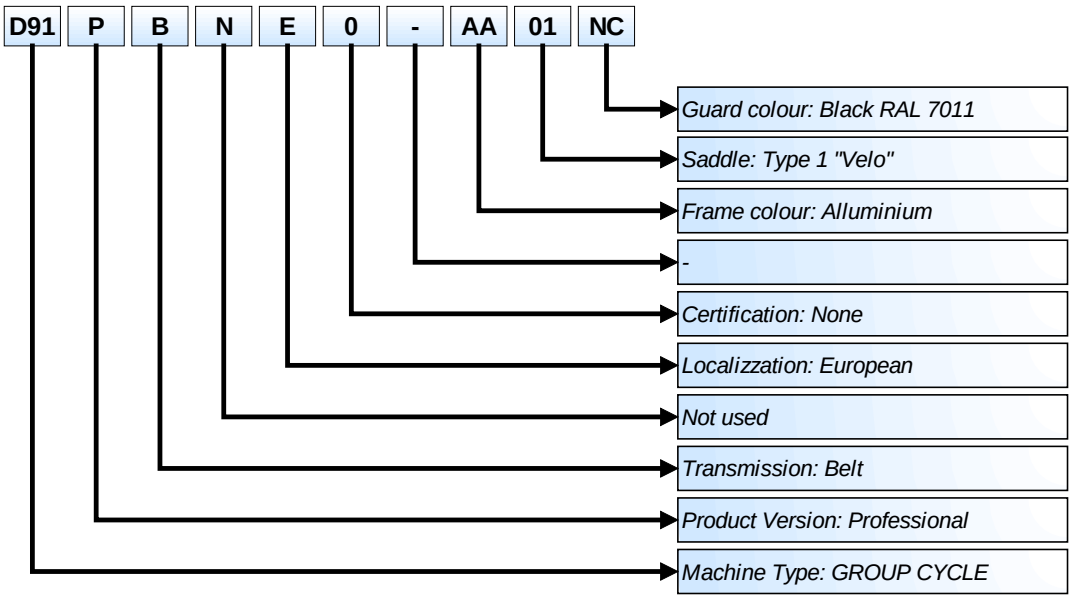
Characters	***Description***	***Key to values***
1,2,3,	*Machine type*	**D91** = Group Cycle
4,	*Product version*	**H** = Home Environment **P** = Professional Environment
5,	*Transmission colour*	**C** = CHAIN transmission **B** = BELT transmission
6,	*(Not used)*	**N**
7,	*Country Localization*	**E** = European **U** = U.S.A.
8,	*Certification*	**0** = None
-	-	**-**
9,10,	*Frame colour*	**AA** = Aluminium
11,12,	*Saddle*	**01** = Type I "Velo"
13,14.	*Guards colour*	**NC** = Black RAL 7011

☞ **Both for ITALIAN and OTHER COUNTRIES market, the machine is partially disassembled and packaged into a cartoon box, which contains the assembly instruction sheet.**

For example, a possible product code would be:

D91PBNE0 – AA01NC

which is interpreted as follows:



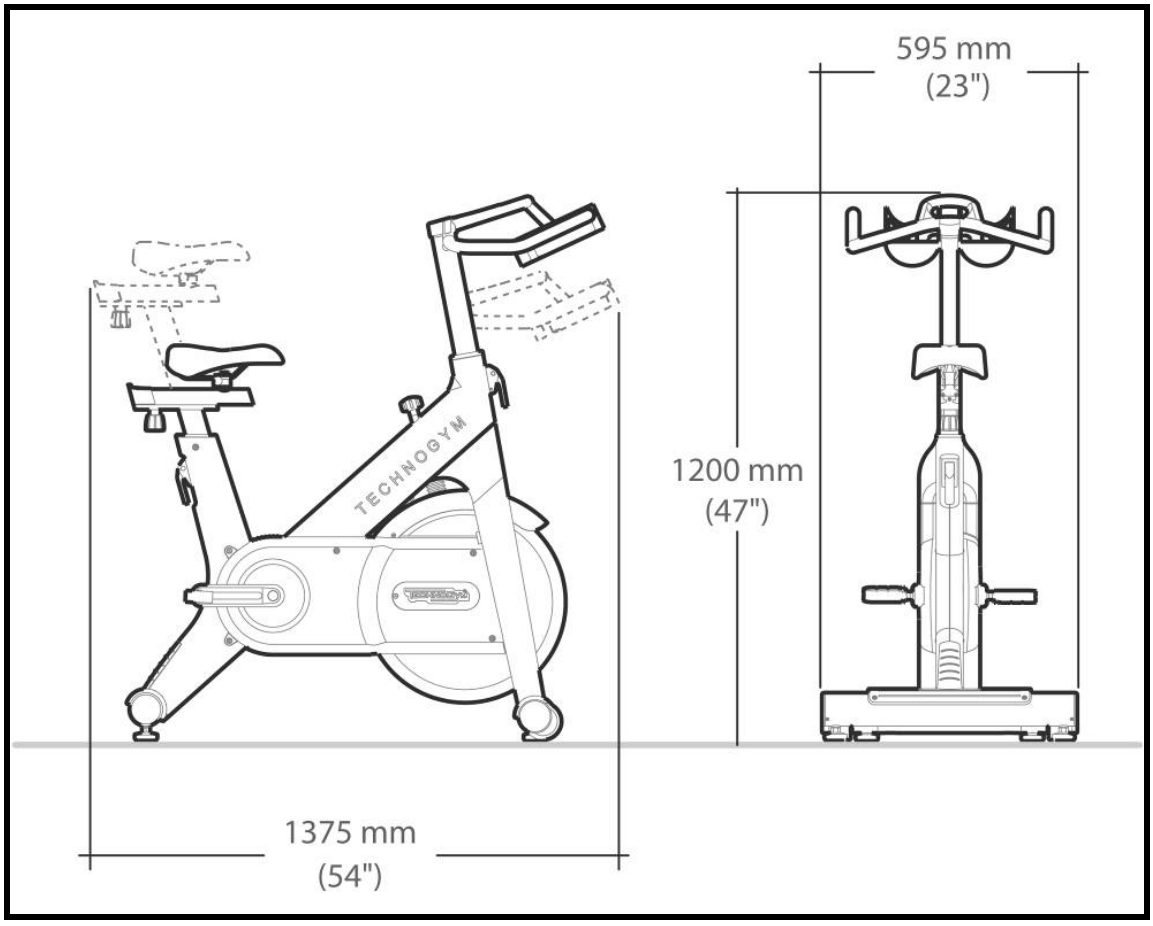
2.2 PRODUCT CHARACTERISTICS

Min – max user height	***140-240cm / 4,6" – 6,9"***
Max user weight	***160Kg / 320lbs***
Q factor	***180mm / 7"***
Transmission	***Chain***
Frame	***Aluminium***
Dual-sided SPD pedals	***STANDARD***
Lock system for home environment	***OPTIONAL***

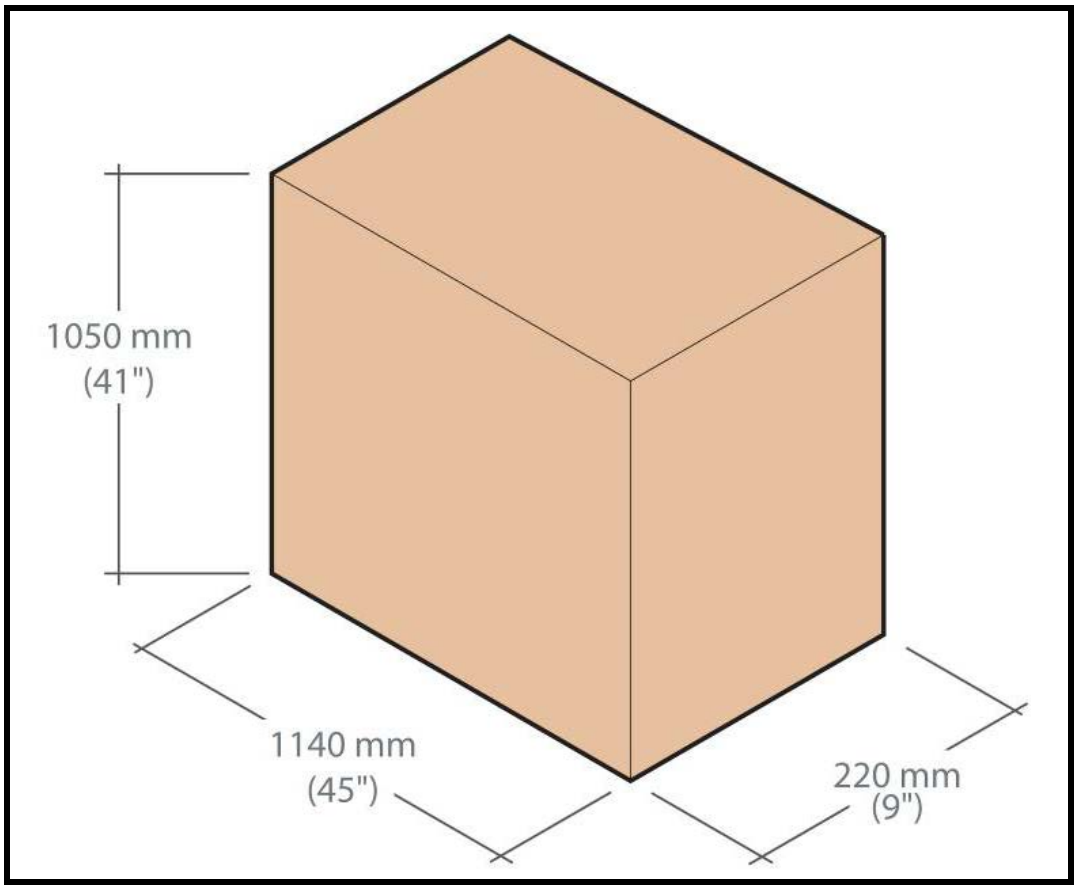
2.3 MECHANICAL CARACHTERISTICS

Width	***595 mm / 23"***
Length	***1375 mm / 54"***
Height	***1200 mm / 47"***
Weight	***60 Kg / 132 lbs***

2.3.1 OVERALL DIMENSIONS IN USE



2.3.2 PACKING DIMENSIONS (EUROPE AND OVERSEAS)



2.4 AMBIENT SPECIFICATIONS

Temperature	*Operating*	*to 5° a 35° C*
	Storage	*to -10 a 70° C*
Humidity	*Operating*	*to 30% a 80% non-condensing*
	Storage	*to 5% a 85% non-condensing*

2.5 CONFORMITY TO REGULATIONS

The machine conforms to the following standards:

	EUROPE	***USA***
EMI	*Inapplicable*	*Inapplicable*
Safety	*EN957-1 (2005)* *EN957-10 (2005)*	
Directives	*2006/42/CE*	

Moreover:

- *Electrical isolation class:* ***Inapplicable****;*
- *Protection rating:* ***IP20****.*

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3 ACCESSORIES

3.1 FLYWHEEL LOCK SYSTEM

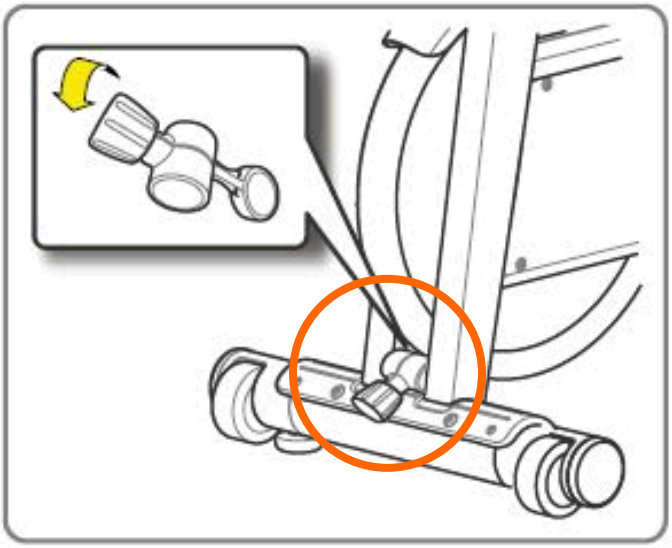


Figure 3.1-1

The accessories supplied with the equipment, are indicated in the User Manual with the relative indications of use.

3.2 HANDLEBAR PROTECTION

Figure 3.2-1

This rubber protection is used to preserve the handlebar, in case of the equipment is positioned as in figure below:

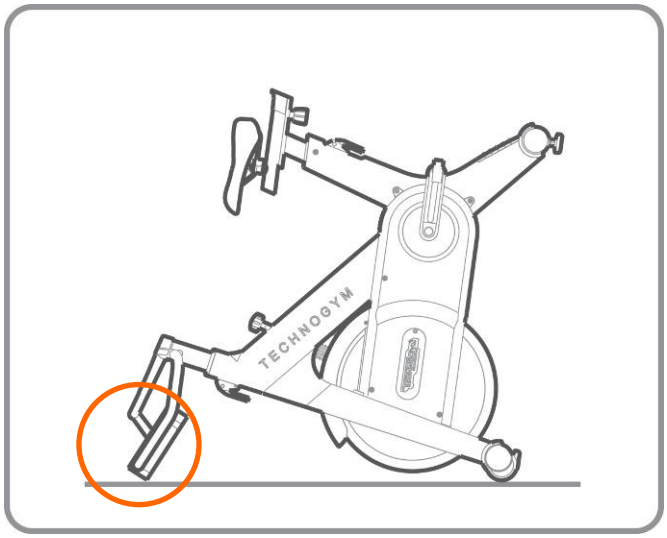
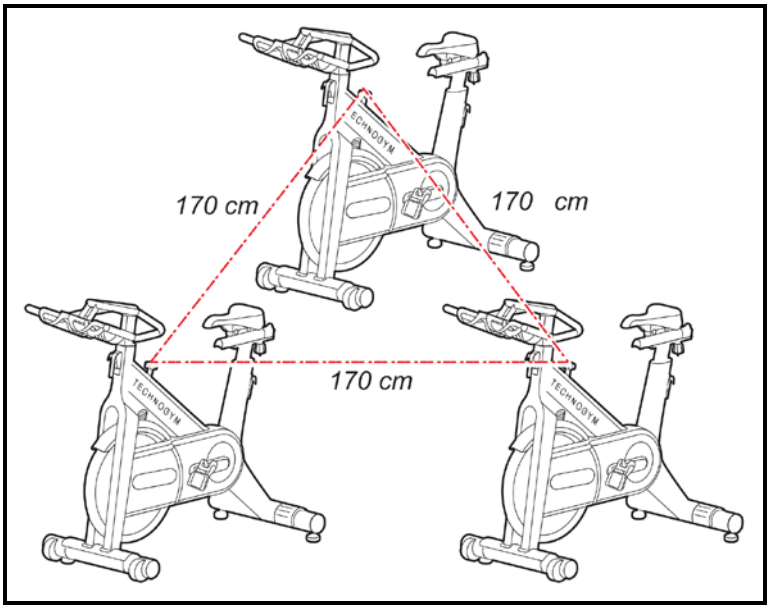


Figure 3.2-2

3.3 WIRELESS CONSOLE

A0000488	***Group Cycle Wireless Console***



CAUTION: It is advisable to use ANT+ type chest belts. An analogue chest belt may be subject to interferences from nearby users.

If using analogue chest belts, the equipment must be placed at least **170cm** from each other as shown in the picture, in order to avoid interferences.

To disassembling the group, carry out the procedure described in the paragraph: 6.13"Disassembling the Wireless Console".

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4 INSTALLATION AND HANDLING INSTRUCTIONS

4.1 SPECIFICATIONS AND REQUIREMENTS

For correct machine installation, make sure that:

- The machine is installed on a level surface that is free of vibrations and has sufficient carrying capacity for the combined weight of the machine and user.
- The place of installation is free of dust and sand.
- The place of installation meets the operating temperature and humidity conditions specified in paragraph: 2.4“Ambient specifications”.

4.2 INSTALLATION

The equipment’s installation and assembly procedure, are detailed on the relative manual, supplied with the machine delivery.

4.3 EQUIPEMENT MOVING

Movement and positioning of the equipment on the ground must be done with great caution, because there may be a loss of stability of it.

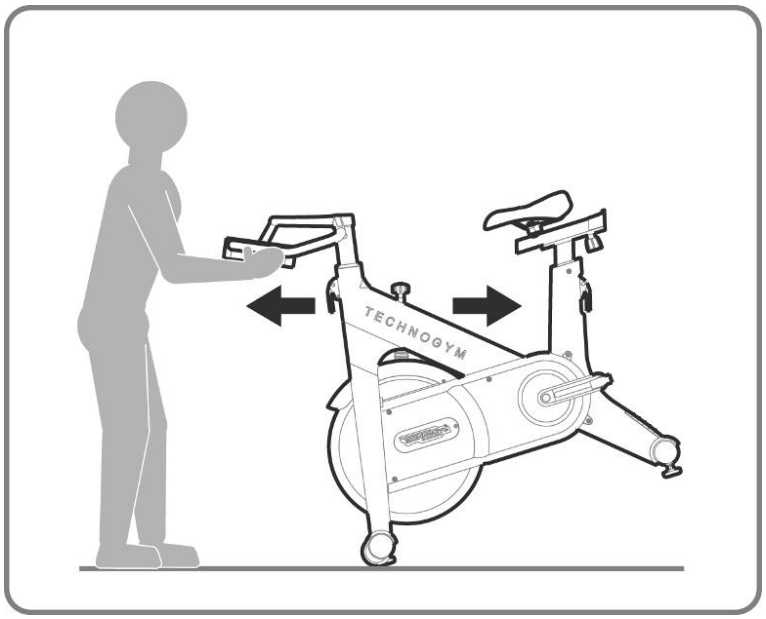


Figure 4.3-1

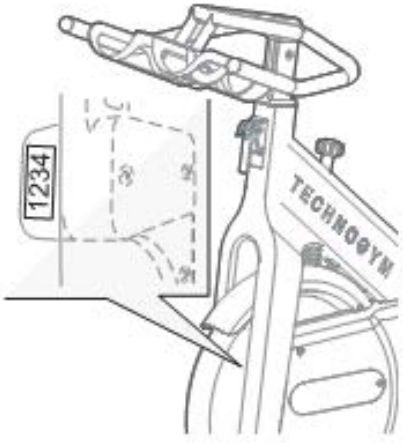
1. The equipment is equipped of fixed front wheel. To move should lift slightly and push forward or backward, as shown in Figure.

CAUTION: If floor conditions do not allow the use of the wheels, the shift must be made with standard lifting and transportation equipment.

5 TROUBLESHOOTING

5.1 THE CADENCE READING (RPM) IS INCORRECT

1. If the cadence reading (RPM) is incorrect, verify that the display receiver and the transmitter have the same code.



2. If the codes match, replace the transmitter batteries.
3. If the data are still incorrect after replacing the batteries, proceed with tuning.
   a. Remove the batteries from the display.
   b. Insert the same batteries again while keeping any key depressed.
   c. Press the RETURN key and check the code appearing on the lower frame of the display. This code must match the code printed on the transmitter.
   d. Press and hold the PLAY key; the display visualises code 0000.
   e. Set the same code as that appearing on the transmitter: press the INCREASE or DECREASE key to modify the single digit; press the PLAY key to skip to the next digit.

5.2 E6 ERROR ON THE WIRELESS CONSOLE

The error E6 is displayed in case of the communication is missing between the receiver in the display and the transmitter on the flywheel.

If the error appear, follow the below procedure to fix it.

1. Remove the batteries from the display.
2. Insert the same batteries again while keeping any key depressed.
3. Press the RETURN key and check the code appearing on the lower frame of the display. This code must match the code printed on the transmitter.
4. Press and hold the PLAY key; the display visualises code 0000.
5. Set the same code as that appearing on the transmitter: press the INCREASE or DECREASE key to modify the single digit; press the PLAY key to skip to the next digit.

6 DISASSEMBLY OF COMPONENTS

6.1 DISASSEMBLING HANDLEBAR

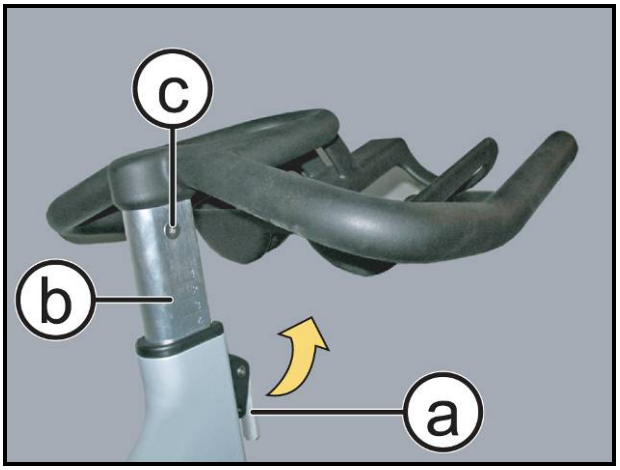


Figure 6.1-1

1. Lift up the lever **(a)** as indicated by arrow.
2. Remove the upright **(b)** upward.
3. Back off the screws **(c)** on both sides, using a 5mm hexagonal wrench, to remove the handlebar from the upright.

To reassemble the handlebar, carry out the above steps in reverse order.

6.2 DISASSEMBLING SADDLE

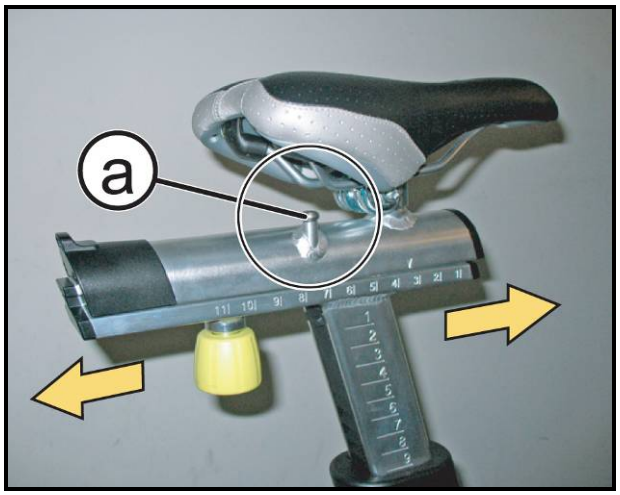


Figure 6.2-1

1. Lift up the pin **(a)**, sliding the saddle following the arrows.
2. Remove the saddle group.

To reassemble the saddle, carry out the above steps in reverse order.

6.3 DISASSEMBLING BUSHES ADJUSTMENT LEVER OF SEDDLE AND HANDLEBAR

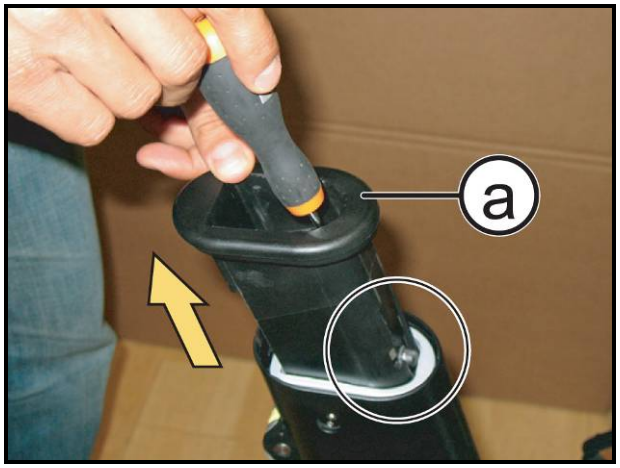


Figure 6.3-1

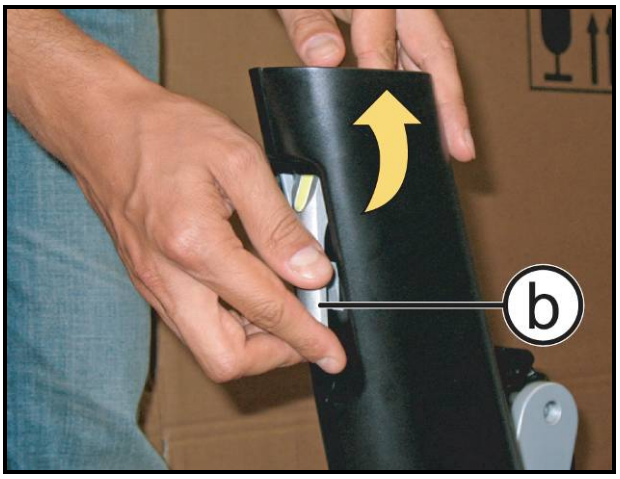


Figure 6.3-2

For both bushings:

1. Remove the saddle group and/or the handlebar group.

2. Force towards the inside of the frame the plastic tab with the pin **(a)**, using a flat Phillips screwdriver. At the same time remove the bushing pulling it up.

3. Remove the lever **(b)** from the inside of the frame, as shown by arrow in the figure at the side.

To reassemble the bushing and the adjusting lever, carry out the above steps in reverse order.

6.4 DISASSEMBLING THE GUARDS

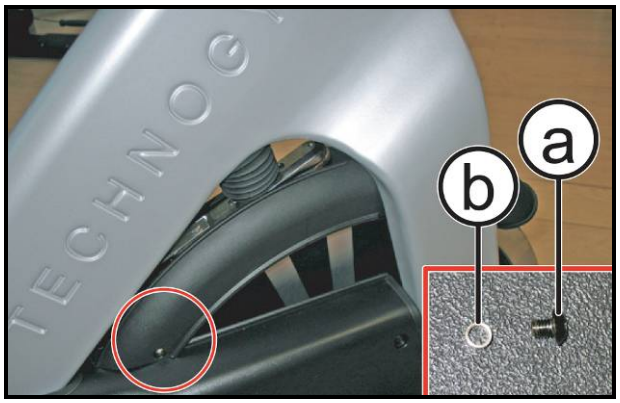


Figure 6.4-1

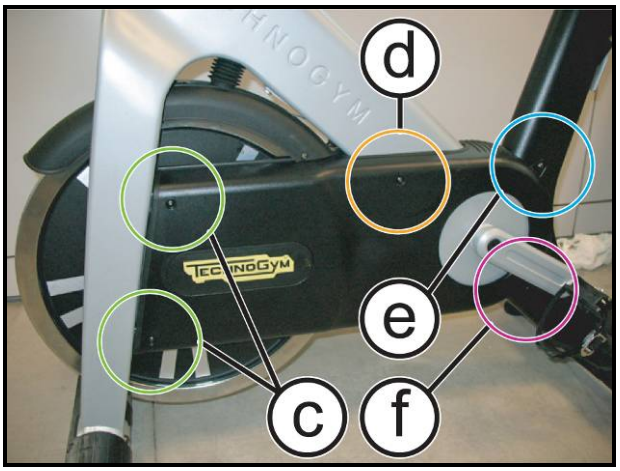


Figure 6.4-2

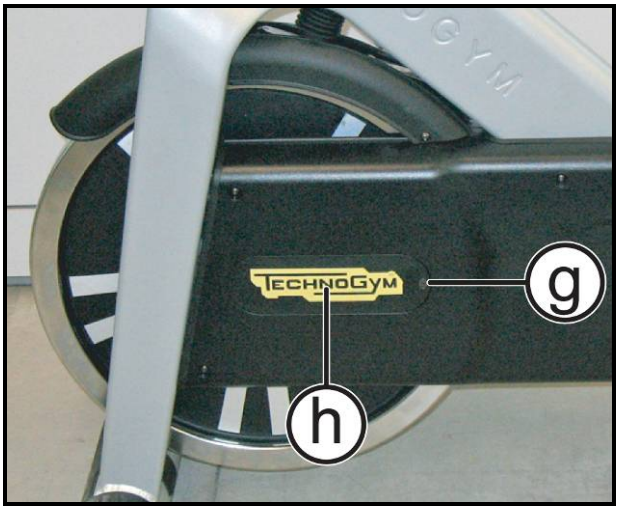


Figure 6.4-3

Lateral casings

1. Back off the screw **(a)** using a 3mm hexagonal wrench and remove the spacer **(b)**.

2. Back off the 5 screws **(c)**, **(d)**, **(e)** and **(f)**, using a 3mm hexagonal wrench.

During the reassembly, place the screws according to their lengths, as described below:

- ***(c) = M5x12mm;***
- ***(d) = M5x12mm (CHAIN model);***
- ***(d) = M5x45mm (BELT model);***
- ***(e) = M5x10mm;***
- ***(f) = M5x20mm.***

3. Remove the guard.

Disassembling the inspection casing:

4. Back off the screw **(d)** using a 3mm hexagonal wrench.

5. Remove the inspection guard **(e)**.

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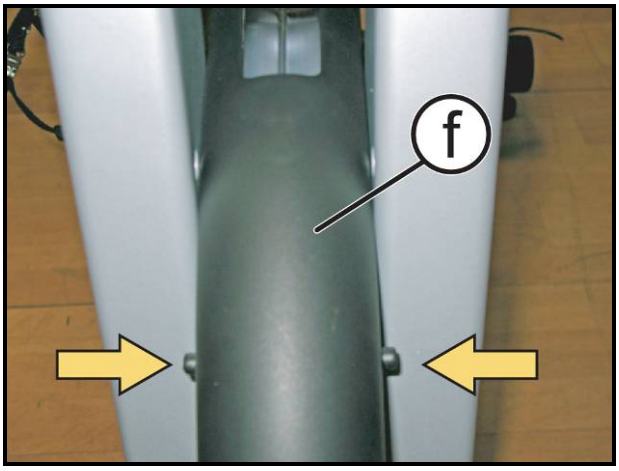


Figure 6.4-4

1. Press on the guard **(f)** as indicated by the arrows, since it can be possible to remove it from the frame.

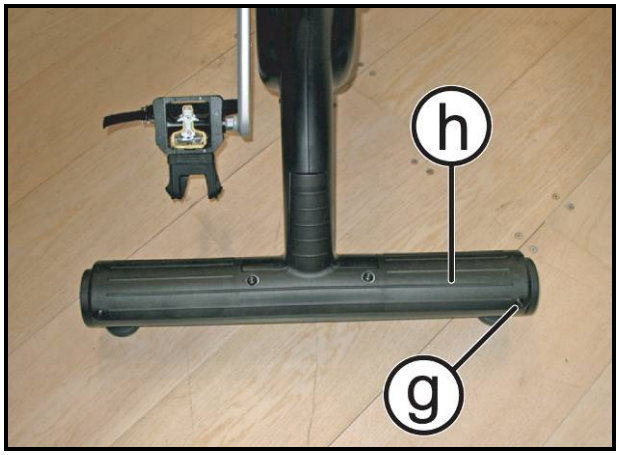


Figure 6.4-5

Rear guard:

2. Back off the 4 screws **(g)** using a 3mm hexagonal wrench.
3. Remove the guard **(h)**.

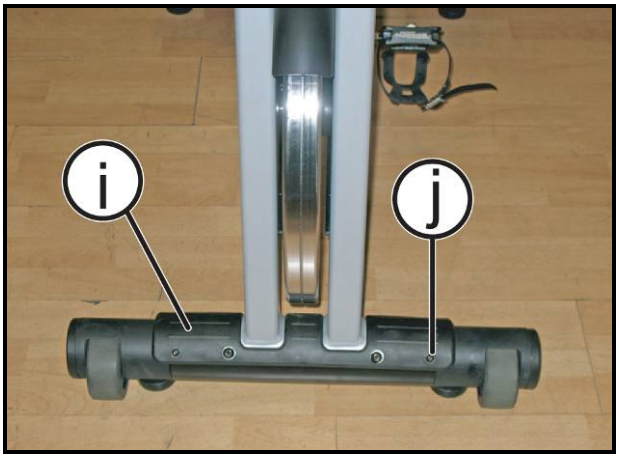


Figure 6.4-6

Anterior guard:

4. Back off the 4 screws **(i)** using a 3mm hexagonal wrench.
5. Remove the guard **(j)**.

To reassemble the guards, carry out the above steps in reverse order.

6.5 DISASSEMBLING PEDAL, PEDAL CAGE AND PEDAL CRANKS

6.5.1 DISASSEMBLING THE PEDAL

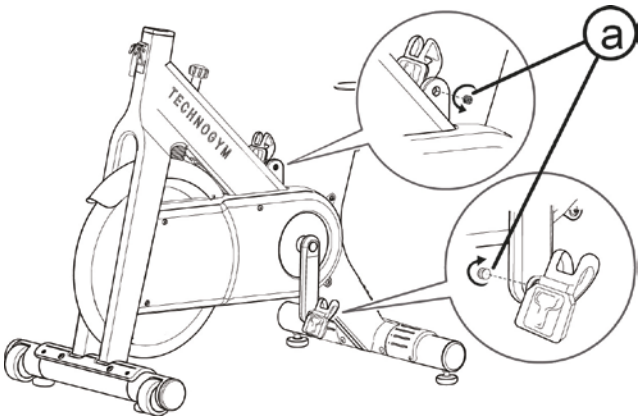


Figure 6.5-1

1. Back off the grub screw **(a)** from the internal side of the pedal crank, as shown in the figure at side.

ATTENTION: the grub screws (a) are different for right and left pedal.

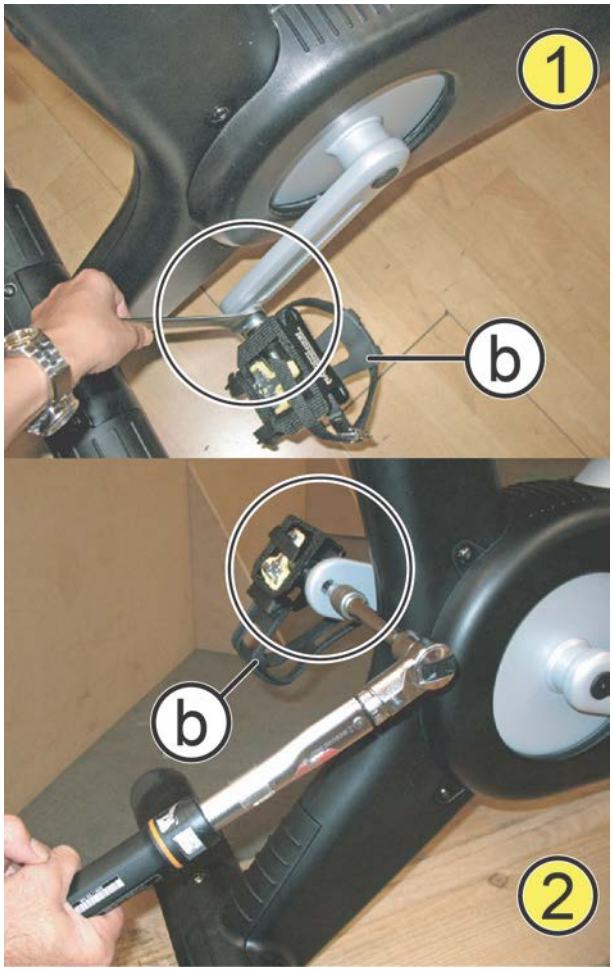


Figure 6.5-2

2. Back off the pedal **(b)** using a 15mm wrench ***(figure 1)*** or using a 6mm hexagonal wrench ***(figure 2)*** from the rear side.

3. Remove the pedal.

To avoid the loosening of the pedals, please carefully carry out the re-assembling procedure, detailed here following.

6.5.2 ASSEMBLING THE PEDAL

The loosening of the pedals from the pedal cranks, is possible due the presence of paint in the area of contact between the two components, follow the below procedure:

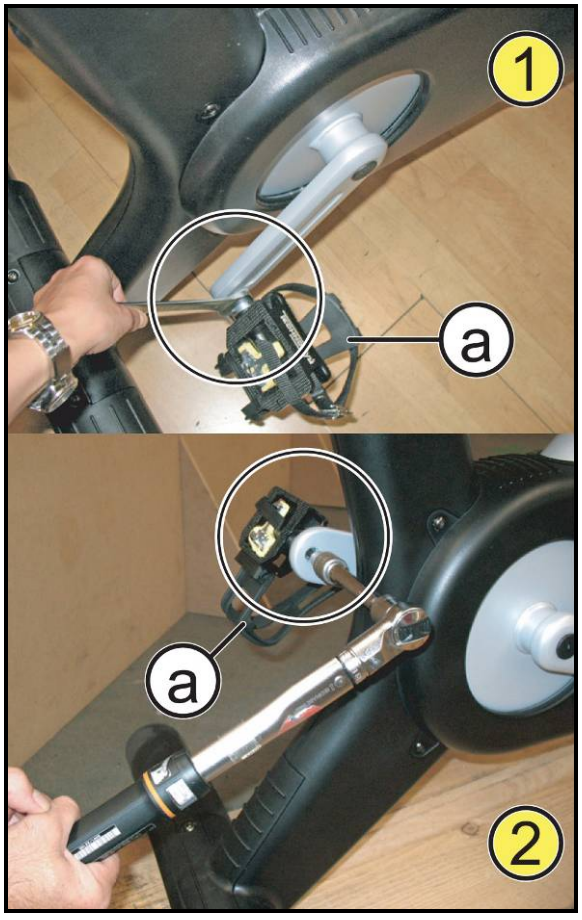


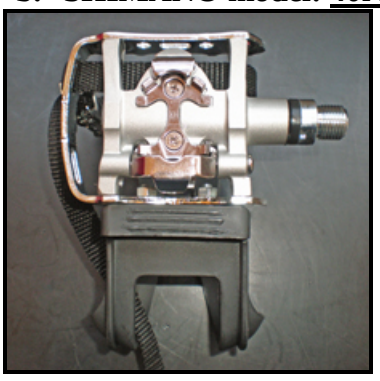
Figura 6.5-3

1. In case of already used pedals, check that the thread is still in a good condition.
2. Put some drops of **Loctite 243** on the thread of the pedal.
3. Screw the pedal on the pedal crank and tighten it using a torque wrench set for **40Nm** *(both for Wellgo and Shimano pedals).*

CAUTION: **lock down the pedal using a torque wrench set for:**:

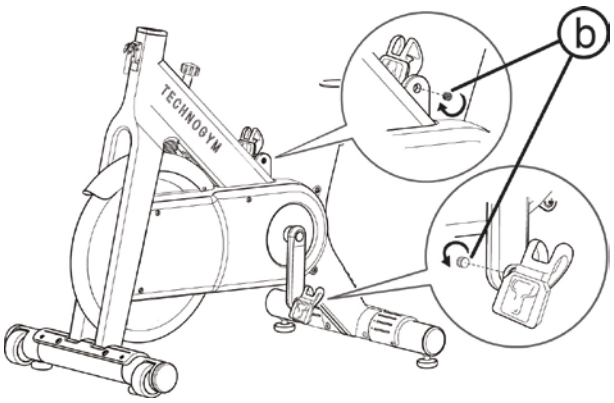
a. **WELLGO model: 40Nm.**

b. **SHIMANO model: 40Nm**.



4. Loose the pedals of about 1 turn.
5. Tighten it again at the same value of torque.

CAUTION: This procedure allows during the first tightening setting the pedal thread and the area of contact between the pedal and the pedal crank so to have a correct tighten on the second time.



6. Apply some Loctite 243 to grub screws **(b)**. Holding the pedal in position with a spanner, tighten the grub screw.

CAUTION: lock down the grub screws using a torque wrench set for 40Nm.

ATTENTION: the grub screws (b) are different for right and left pedal, distinguishable from the colour:
- **RIGHT → BLACK**
- **LEFT → WHITE.**

It's suggested to wait at least 1 hour before using the machine, so that the loctite can properly act and dry thoroughly.

6.5.3 DISASSEMBLING THE PEDAL CAGE

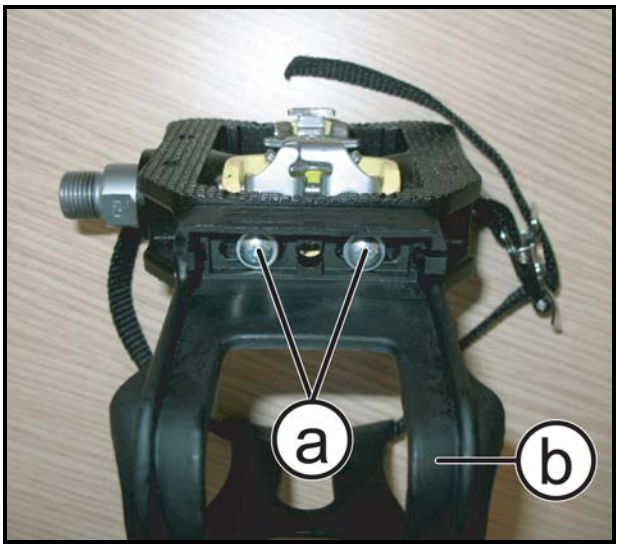


Figure 6.5-4

1. Back off the 2 screws **(a)** using a medium Phillips screwdriver.
2. Remove the pedal cage **(b)**.

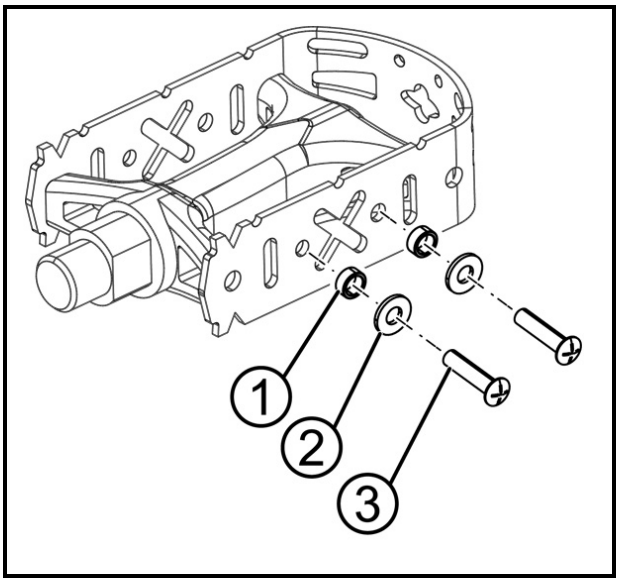


Figure 6.5-5

During the reassembly follow the sequence indicated at the side, reinserting: first the bushing (1), then the washer (2) and at the end the screw (3).

To reassemble the pedal, carry out the above steps in reverse order.

CAUTION: In case of using the pedal without its cage, it is necessary to assemble the screws, washers and bushings, previously removed as shown at the side.

6.5.4 DISASSEMBLING THE PEDAL CRANK

6.5.4.1 CHAIN transmission version

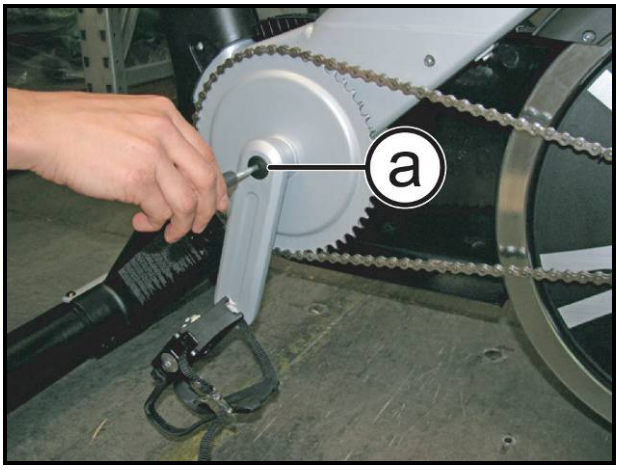


Figure 6.5-6

Disassemble the lateral casings as described in paragraph: 6.4Disassembling the Guards".

1. Remove the pedal crank cap **(a)** using a flat screwdriver.

2. Back off the pedal crank fixing screw using a 14mm socket wrench, as shown in the figure at side.

3. Remove the pedal crank **(b)** using a pedal crank extractor.

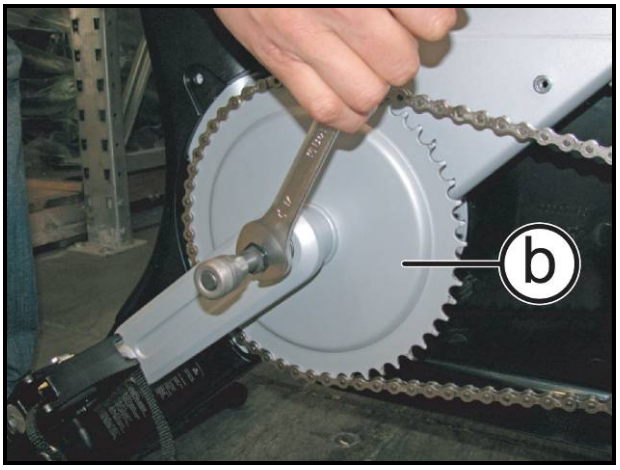


Figure 6.5-7

If the pedal crank extractor pin is not long enough, use an additional pin checking the diameter is 10mm ≤ D ≤15mm.

To reassemble the pedal crank, carry out the above steps in reverse order, considering the note below:

CAUTION: The pedal cranks must be lock down individually, one at a time. This means you must block the pedal crank it self while locking down using the torque wrench.

During the reassembly place some drops of Blue LOCTITE 243 and lock down the pedal crank screw using a torque wrench set for 40Nm.

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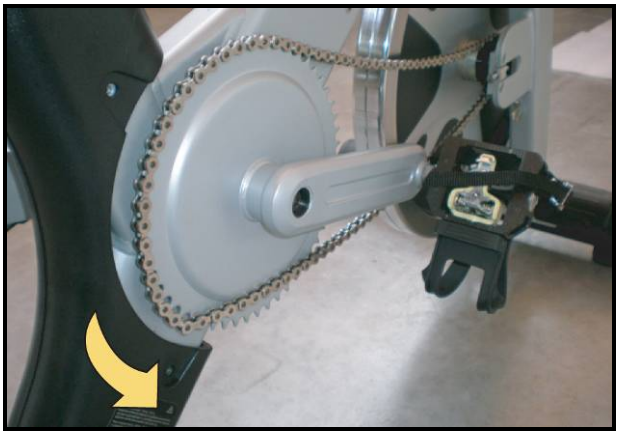

Figure 6.5-8

Reassembly notes on the chain side:

4. To reassemble the chain is not necessary to act on its tension, it just need to place it on the crown wheel and slightly force rotating the pedal crank as shown in the figure at side.

WARNING: during this procedure take care NOT to get your hands caught between the crown wheel and the chain.

6.5.4.2 BELT transmission version

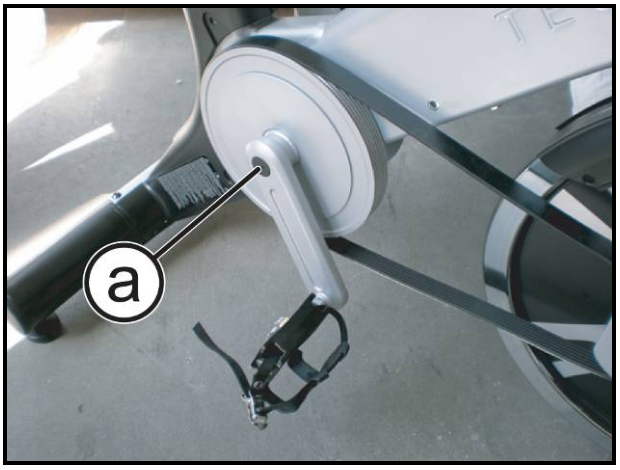

Figure 6.5-9

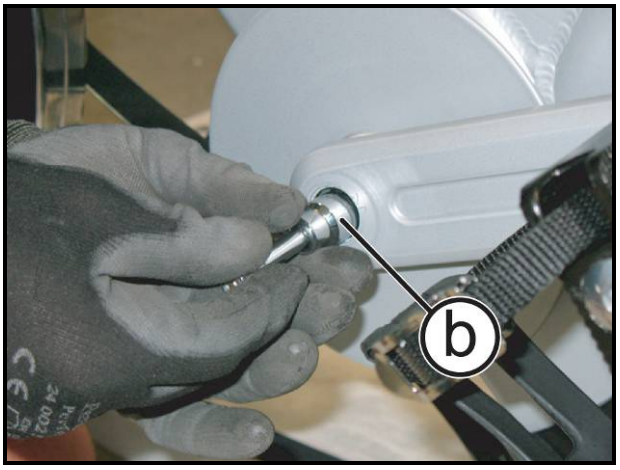

Figure 6.5-10

Remove the lateral guard, as indicated at the paragraph: 6.4Disassembling the Guards".

Loosen the belt tension to facilitate the operations that follow.

1. Remove the pedal crank cap **(a)** using a flat screwdriver.

2. Back off the pedal crank fixing screw **(b)** using a 14mm socket wrench, as shown in the figure at side.

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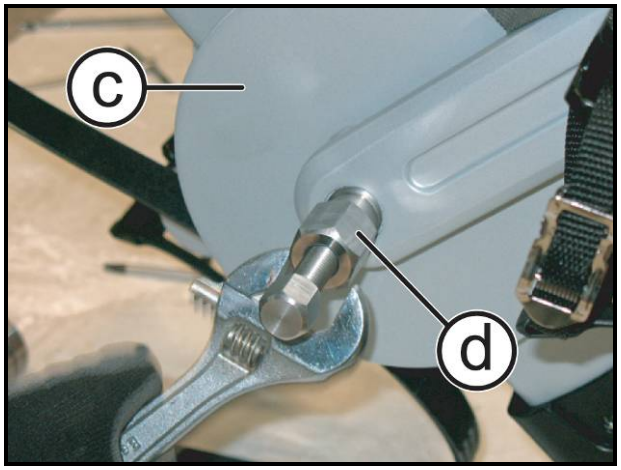


Figure 6.5-11

3. Remove the pedal crank **(c)** using a pedal crank extractor **(d)**.

If the pedal crank extractor pin is not long enough, use an additional pin checking the diameter is 10mm ≤ D ≤15mm.

To reassemble the pedal crank, carry out the above steps in reverse order, considering the note below:

CAUTION: The pedal cranks must be lock down individually, one at a time. This means you must block the pedal crank it self while locking down using the torque wrench.

CAUTION: During the reassembly place some drops of Blue LOCTITE 243 and lock down the pedal crank screw using a torque wrench set for 40Nm.

CAUTION: Once the replacement readjust belt tension as described at the paragraph: 7.2"Adjusting the BELT tension".

6.6 DISASSEMBLING THE PEDALS SHAFT

Carry out the procedure described in paragraph: 6.5.4"Disassembling the pedal crank" and remove both the pedal cranks.

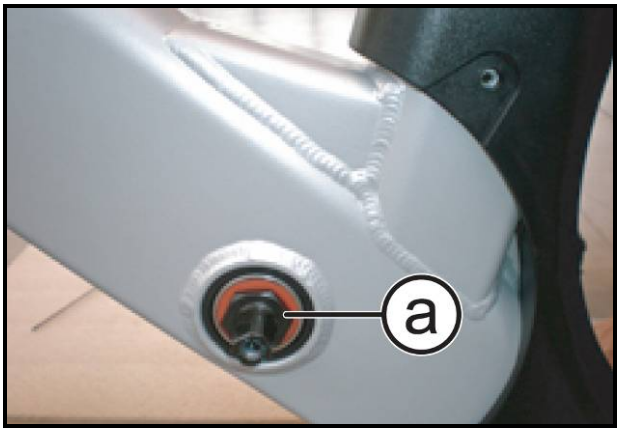
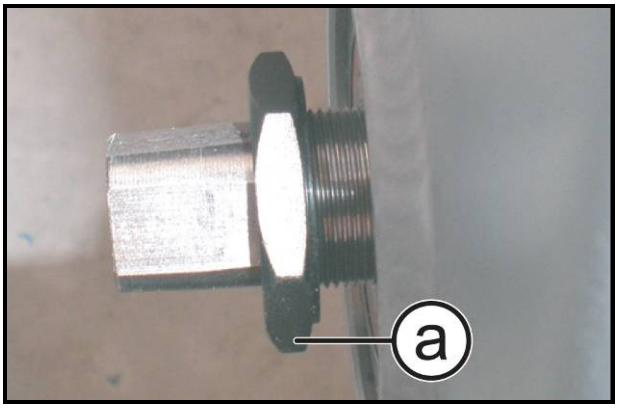


Figure 6.6-1

1. Back off the ring nut **(a)** using a 29mm wrench, docking down the pin on the opposite side using a 17mm wrench.

CAUTION: During the reassembly place some drops of Blue LOCTITE 243 and mount the ring nut (a) with the shaped face toward the frame as shown below. Lock down using a torque wrench set for 50Nm.



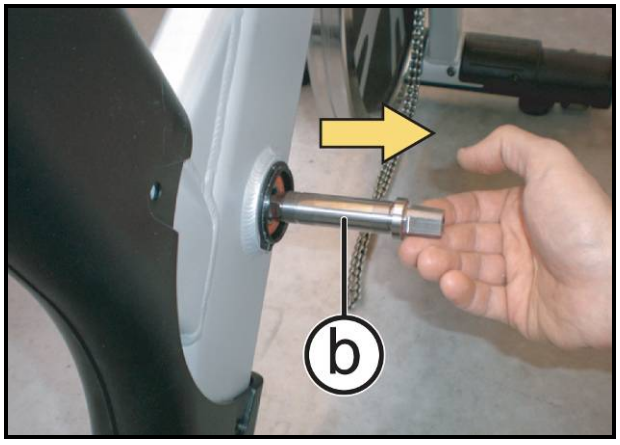


Figure 6.6-2

2. Remove the shaft **(b)** from the right side of the machine (opposite to ring nut side).

CAUTION: During the reassembly, take care to reassemble the pedal shaft in the same way, with the shaft shoulder on the chain side, otherwise is not possible to align the pinion to the crown wheel crank.

Continued on following page...

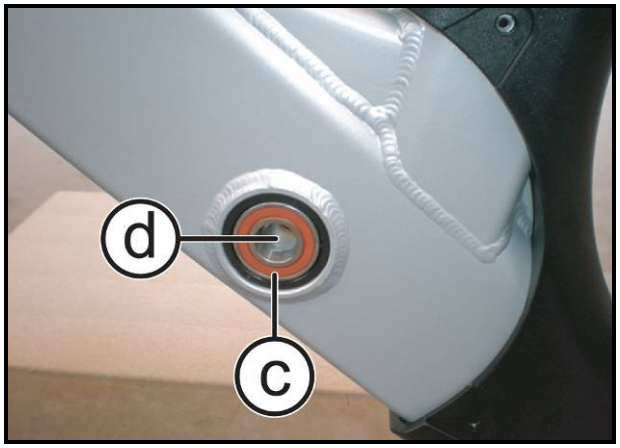


Figure 6.6-3

3. If damaged, remove the 2 bearings **(c)** and replace them.

☞ **During the reassembly insert again the spacer (d) between the bearings (c). This will act as stops and reference for the bearings position.**

To reassemble the pedals shaft, carry out the above steps in reverse order.

6.7 DISASSEMBLING BRAKE

6.7.1 DISASSEMBLING BRAKE KNOB

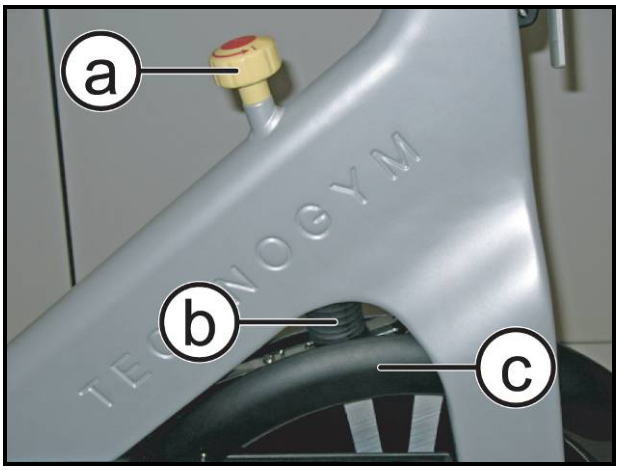


Figure 6.7-1

1. Back off the knob **(a)** and remove the rubber bellow **(b)** from the bottom.
2. Remove the protection guard **(c)**, as detailed at Figure 6.4-1.

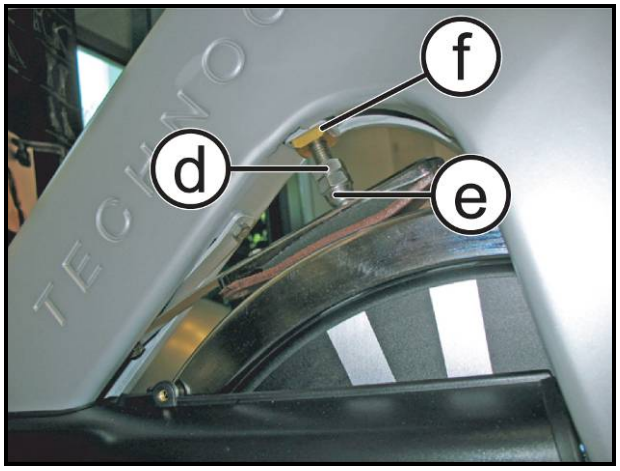


Figure 6.7-2

3. Press on the brake knob downward.
4. Loosen the counter-nut **(d)** and the nut **(e)** using two 17mm wrench, and remove them.
5. Remove the pawl **(f)** backing it off from the brake pin.

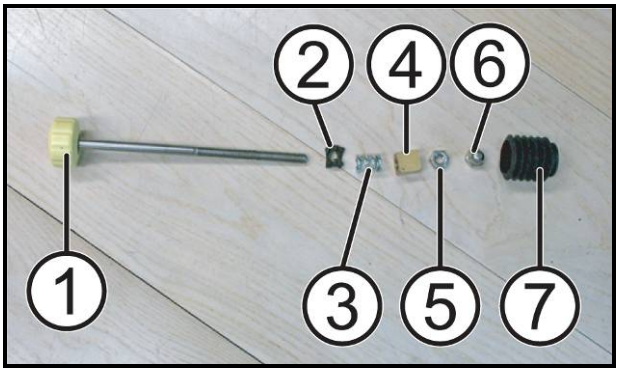


Figure 6.7-3

During reassembly, refer to the sequence indicated in the figure at the side.

At the end of the reassembling carry out the adjusting procedure detailed at paragraph: 7.6"Adjusting the braking resistance".

6.7.2 DISASSEMBLING BRAKE PAD

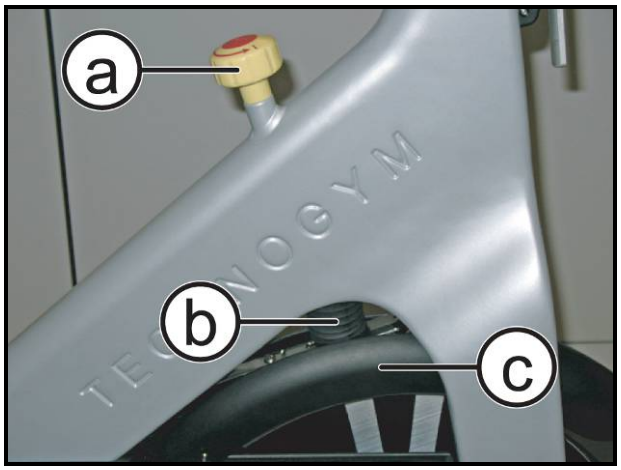


Figure 6.7-4

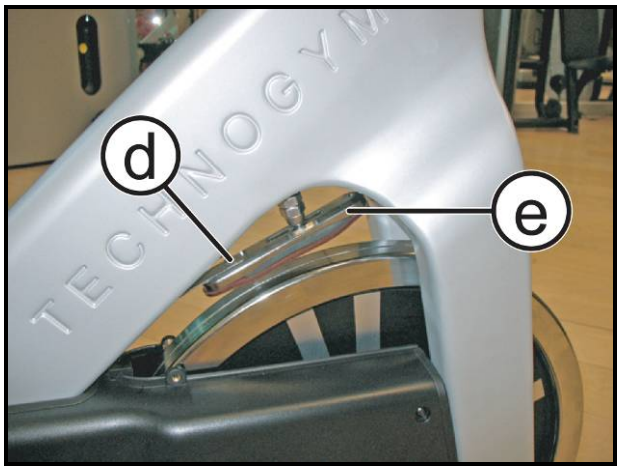


Figure 6.7-5

1. Back completely off the brake knob **(a)**.
2. Remove the rubber bellow **(b)**.
3. Remove the protection guard **(c)**, as describe at Figure 6.4-1.
4. Back off the screw **(d)** with an 8mm wrench.
5. Remove the brake pad **(e)**.

The complete brake pad has to be replaced in case of excessive wear. It's not possible to replace just the leather.

To reassemble the brake group, carry out the above steps in reverse order.

6.8 DISASSEMBLING AND REPLACING THE CHAIN

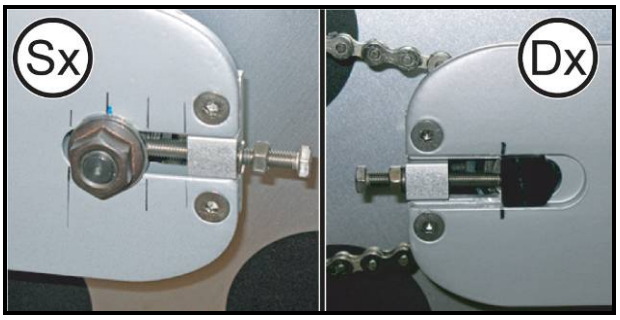


Figure 6.8-1

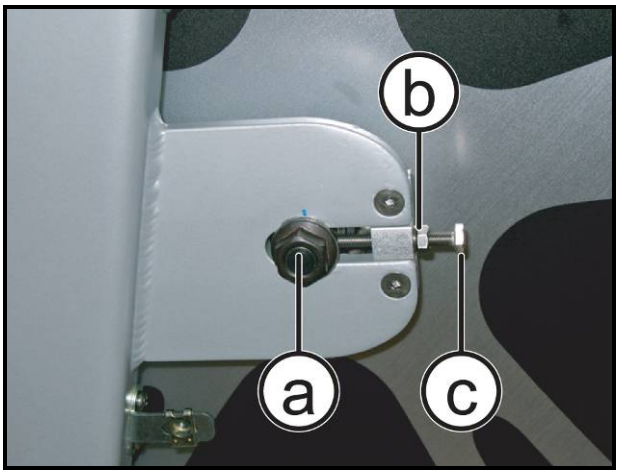


Figure 6.8-2

Carry out the procedure described in paragraph: 6.4"Disassembling the Guards*".*

Mark the position of the block, using a pen, on both right (R -Dx) and left side (L - Sx) as shown in the figure

1. Loosen the nut **(a)** using a 19mm wrench.
2. Loosen the chain tension baking off the counter-nut **(b)** and the screw **(c)** of chain tension device, on both sides of the flywheel, using a 10mm wrench.

Remove the chain from the machine cutting it or disassembling the flywheel (see procedure 6.9"Disassembling the flywheel and the pinion") if the chain has not the connecting link. Otherwise simply open the connecting link to remove the chain.

To reassemble the chain, carry out the following steps:

Continued on following page...

Figure 6.8-3

1. Reassembly the flywheel if previously disassembled.

2. Open the connecting link of the **new** chain and pass it on the front pinion **(d).**

3. Pass the chain on the rear toothed wheel **(e)** and then close the connecting link.

After reassembling carry out the procedure at paragraph: 7.1"Adjusting the CHAIN tension and flywheel parallelism".

CAUTION: It's a common behaviour of a NEW CHAIN the fact it can increases its length during the first hours of functioning. We can estimate that in about 1% of its total length equal to 13mm, after a period of 40-50 hours of usage. Then it's possible that after this time a sort of "play" on the pedals is felt by the user due to the loosening of the chain tension and this should be adjusted again.

We want to remind you that this is a standard maintenance procedure detailed in the user manual and which the customer can do by himself.

6.9 DISASSEMBLING THE FLYWHEEL AND THE PINION

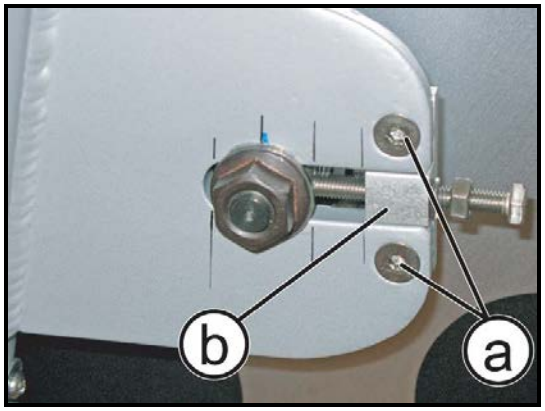


Figure 6.9-1

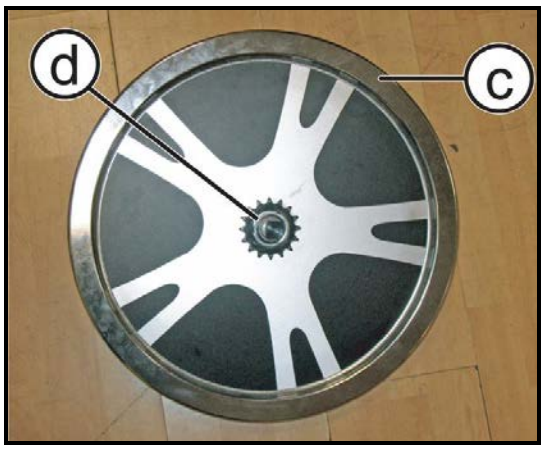


Figure 6.9-2

Carry out the procedure of disassembly described in paragraph: 6.8"Disassembling and replacing the chain".

On both side of the equipment:

1. Back off the 2 screws **(a)** using a 4mm hexagonal wrench.
2. Remove the support **(b)**.
3. Carefully remove the flywheel **(c)**.
4. To remove the pinion **(d)** act using a ring nut socket wrench turning **CLOCKWISE**, instead of counter clockwise.

This "clockwise" thread on the ring nut avoid that when cycling, the pinion is backing off from the flywheel.

To reassemble the flywheel group, carry out the above steps in reverse order, considering the note below:

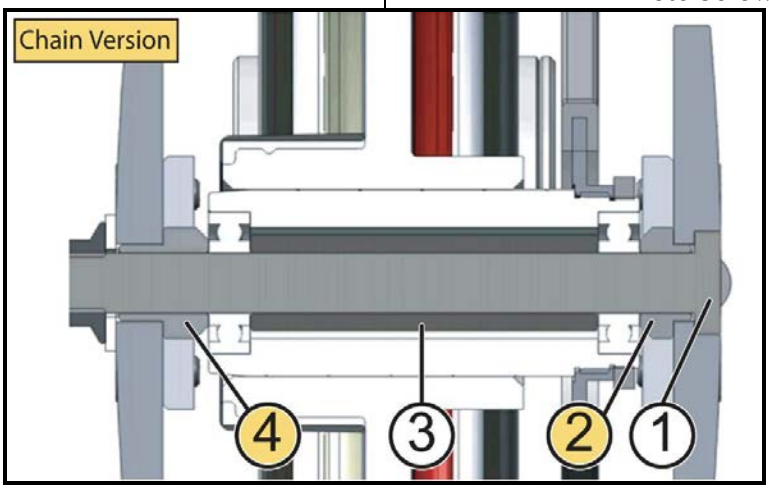


Figure 6.9-3

During the reassembly take care of the parts order, as detailed above; pay particular attention to the particular (2) and (4).

6.10 DISASSEMBLING THE BELT AND FLYWHEEL GROUP

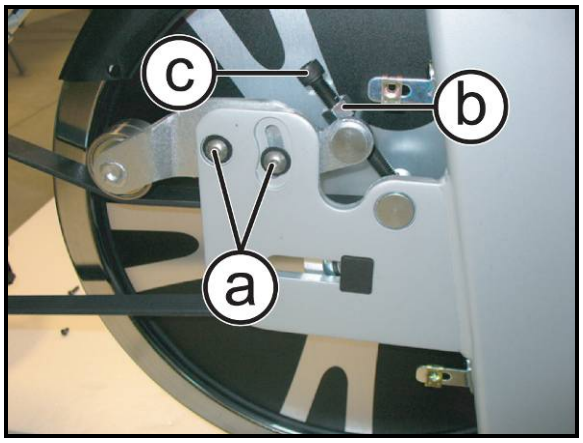


Figure 6.10-1

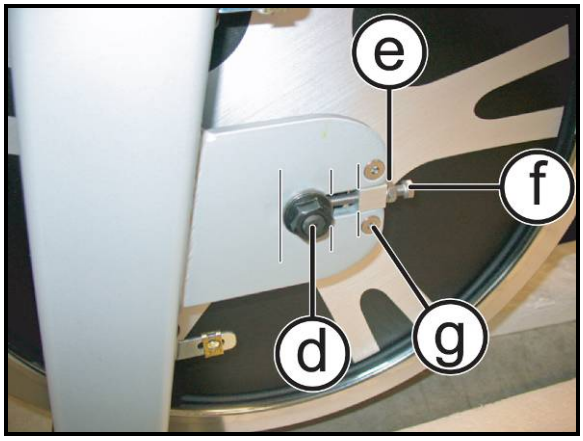


Figure 6.10-2

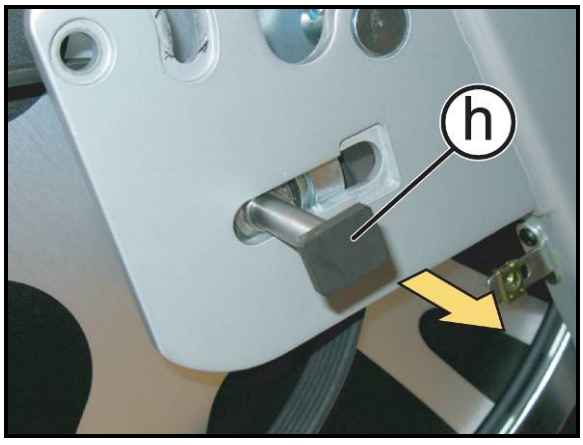


Figure 6.10-3

*Carry out the procedure of disassembly described in paragraph: 6.4"*Disassembling the Guards*".*

On the right side:

1. Loosen the 2 screws **(a)**, using a 5mm hexagonal wrench.
2. Loosen the counter nut **(b)** using a 17mm wrench.
3. *Back off* the bolt **(c)** using a 8mm hexagonal wrench, to *decrease* the tension on the belt.

On left side:

Mark with a marking-pen the starting reference position of nut (d).

4. Back off the nut **(d)** using a 19mm wrench.
5. Loosen the counter-nut **(e)** and the screw **(f)** using a 10mm wrench.

6. Pull out the shaft **(h)**.
7. Remove the flywheel group with caution.
8. Now is possible to remove the belt from the pulley.

CAUTION: During the belt reassembly, carry out the operation described at the paragraphs: 7.2"Adjusting the BELT tension" and 7.3"Adjusting the flywheel parallelism (Belt version)".

To reassemble the belt and the flywheel group, carry out the above steps in reverse order, considering the note below:

Continued on following page...

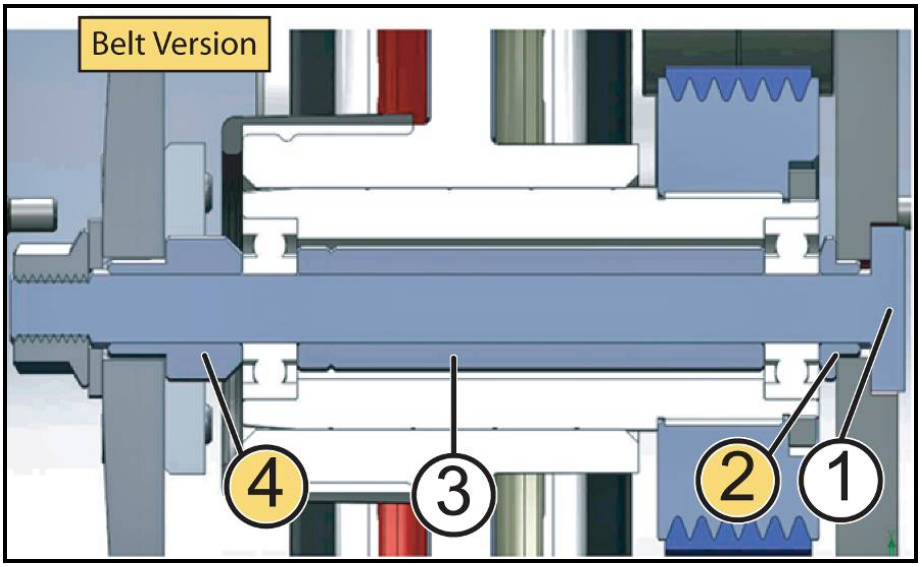


Figure 6.10-4

During the reassembly take care of the parts order, as detailed above; pay particular attention to the parts (2) and (4).

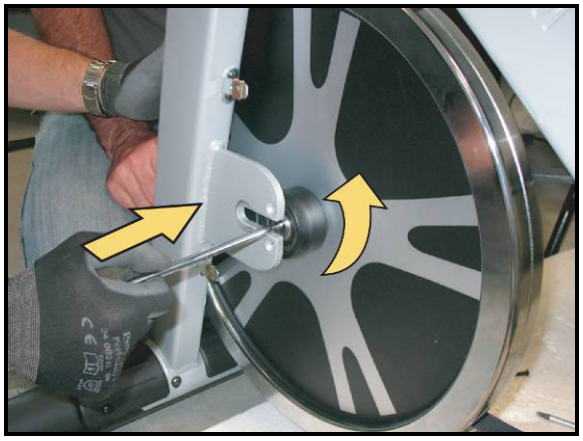


Figure 6.10-5

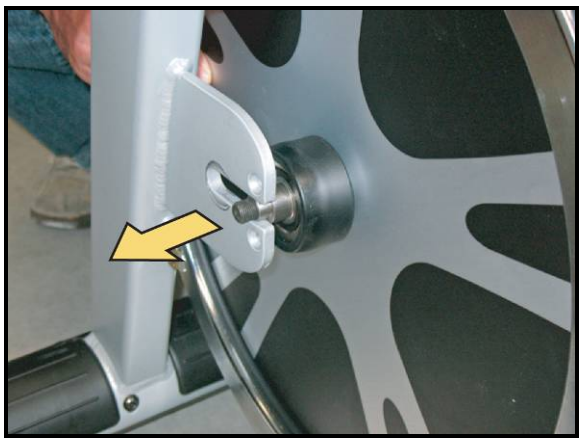


Figure 6.10-6

Before reassembly the flywheel group, replace the belt on the secondary pulley.

1. Insert a wrench into the flywheel shaft hole and lift it up to put it on the it's frame housing, as shown in the figure at the side.

2. Place the shaft on the opposite side and insert up to completely replace the previously inserted wrench.

6.11DISASSEMBLIN THE SECONDARY PULLEY

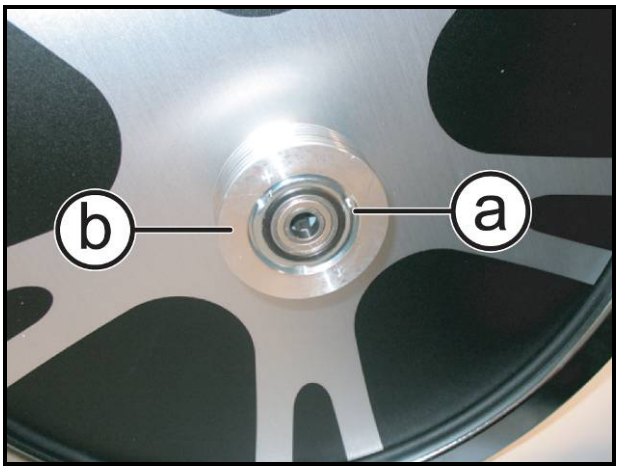


Figure 6.11-1

*Carry out the procedure of disassembly described in paragraph: 6.10"Disassembling the belt and flywheel group" up to point **(8)**.*

On a work bench:

1. Back off the ring nut **(a)** using a socket wrench for ring nut.
2. Remove the secondary pulley **(b)**.

CAUTION: During the reassembly lock down the pulley end the ring nut , using a torque wrench set for 60Nm.

6.12DISASSEMBLING THE FEET

Figure 6.12-1

Carefully urn the machine on one side

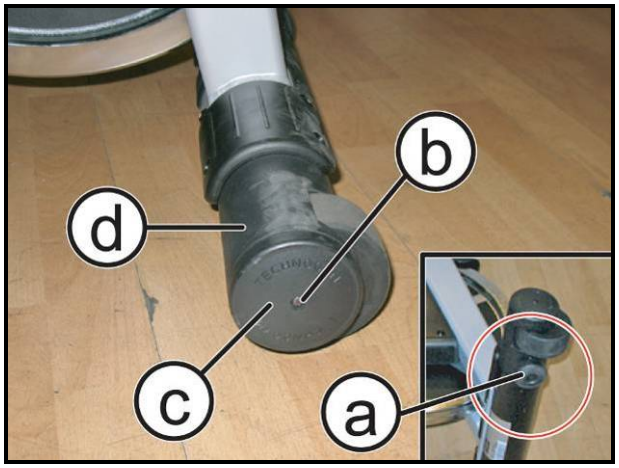


Figure 6.12-2

FRONT foot:

1. Back completely off the lower foot **(a)**.
2. Back off the screw **(b)** using a medium Phillip screwdriver.
3. Remove the plug **(c)**
4. Remove the foot **(d)**.

To reassemble the front foot, carry out the above steps in reverse order.

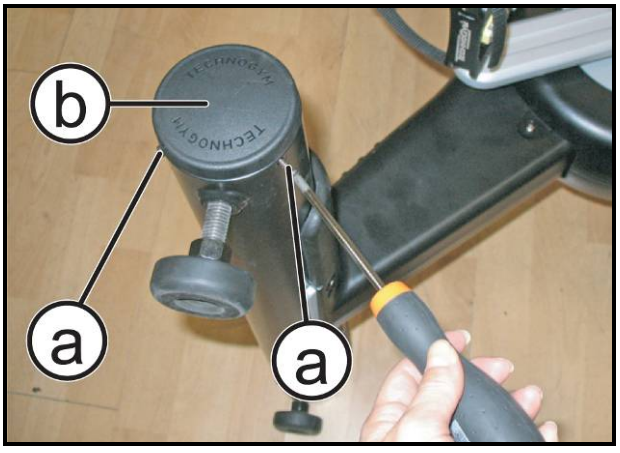


Figure 6.12-3

REAR foot:

1. Back off the 2 screw **(a)** using a small Phillip screwdriver.
2. Remove the plug **(b)**.

Continued on following page...

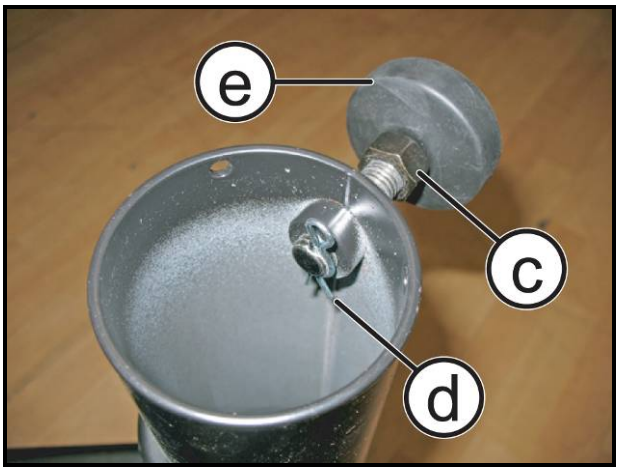


Figure 6.12-4

3. Loosen the counter-nut **(c)**, using a 19mm wrench.
4. Remove the split pin **(d).**
5. Back completely off the foot **(e)** to remove it.

To reassemble the rear foot, carry out the above steps in reverse order.

6.13 DISASSEMBLING THE WIRELESS CONSOLE

CAUTION: If replacing the Console or the RPMs Transmitter, it is necessary to carry out the procedure of re-Pairing, as detailed in the User Manual.

6.13.1 DISASSEMBLING THE CONSOLE

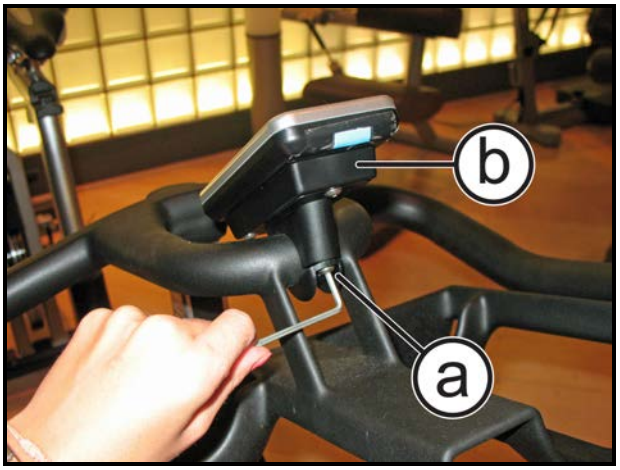


Figure 6.13-1

1. Back off the screw **(a)** using a 3mm hexagonal wrench.
2. Remove the console **(b)**.

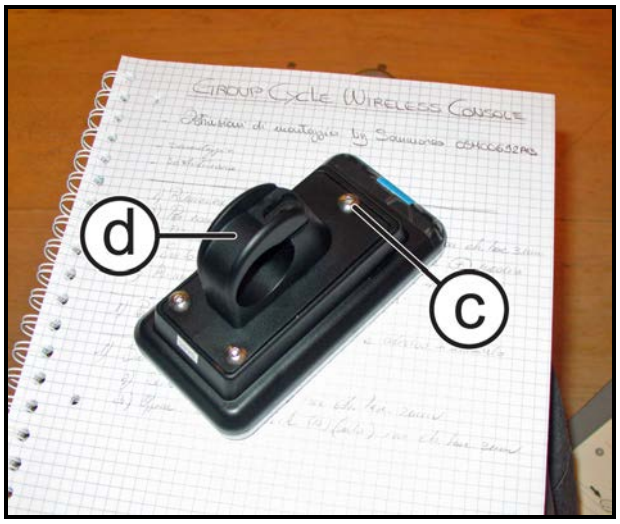


Figure 6.13-2

3. Back off the 3 screws **(c)** using a 3mm hexagonal wrench.
4. Remove the console support **(d)**.

To reassemble the components removed, carry out the above steps in reverse order..

6.13.2 DISASSEMBLING THE SENSOR

Figure 6.13-3

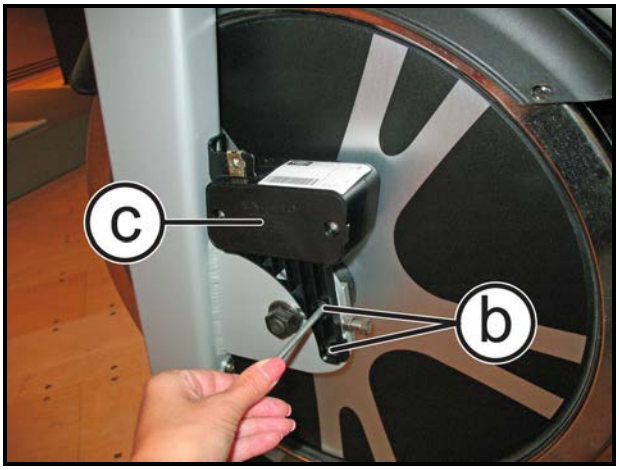


Figure 6.13-4

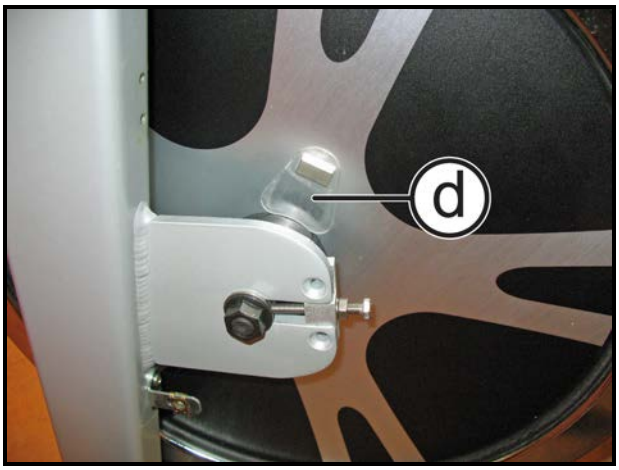


Figure 6.13-5

*Carry out the procedure described in paragraph: 6.4"Disassembling ", up to step **(3)**.*

1. Back off the screw **(a)** using a medium Phillip screwdriver.

2. Back off the 2 screws **(b)** using a 4mm hexagonal wrench.

3. Remove the group **(c)**.

4. Remove the sensor **(d)** and replace if is necessary.

To reassemble the components removed, carry out the above steps in reverse order.

6.13.3BATTERY REPLACING

6.13.3.1 For Console

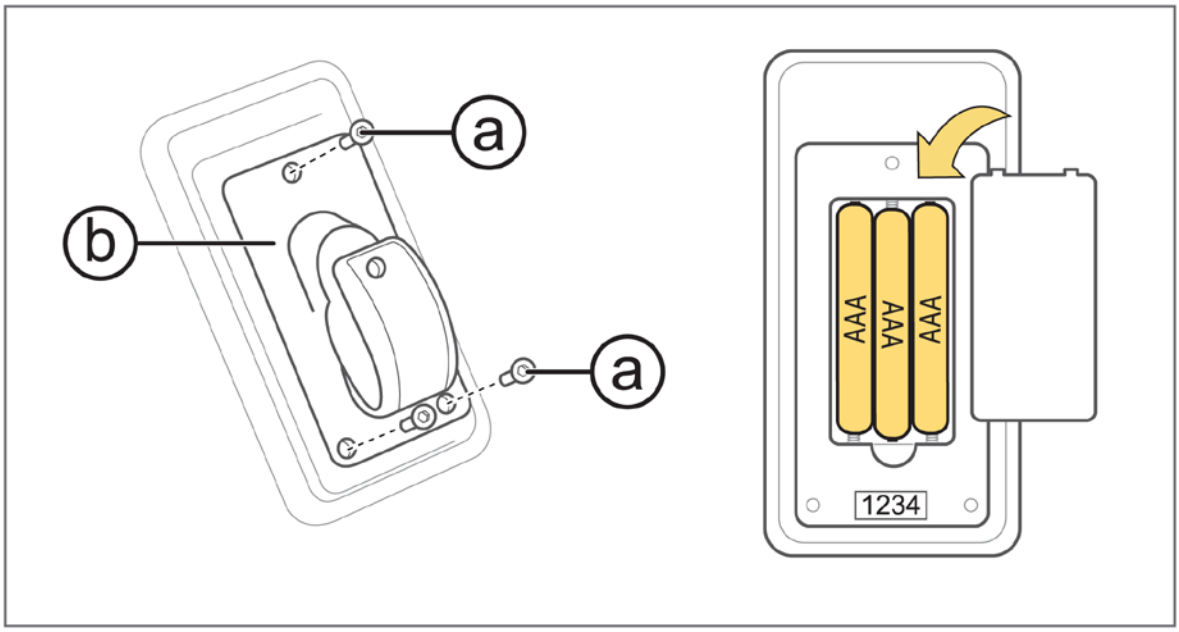


Figure 6.13-6

Carry out the procedure described in paragraph: 6.13.1"Disassembling the Console*".*

1. Back off the 2 screws **(a)** using a 3mm hexagonal wrench.
2. Remove the support **(b)** and replace the batteries if is necessary.

To reassemble the components removed,
carry out the above steps in reverse order.

6.13.3.2 For sensor group

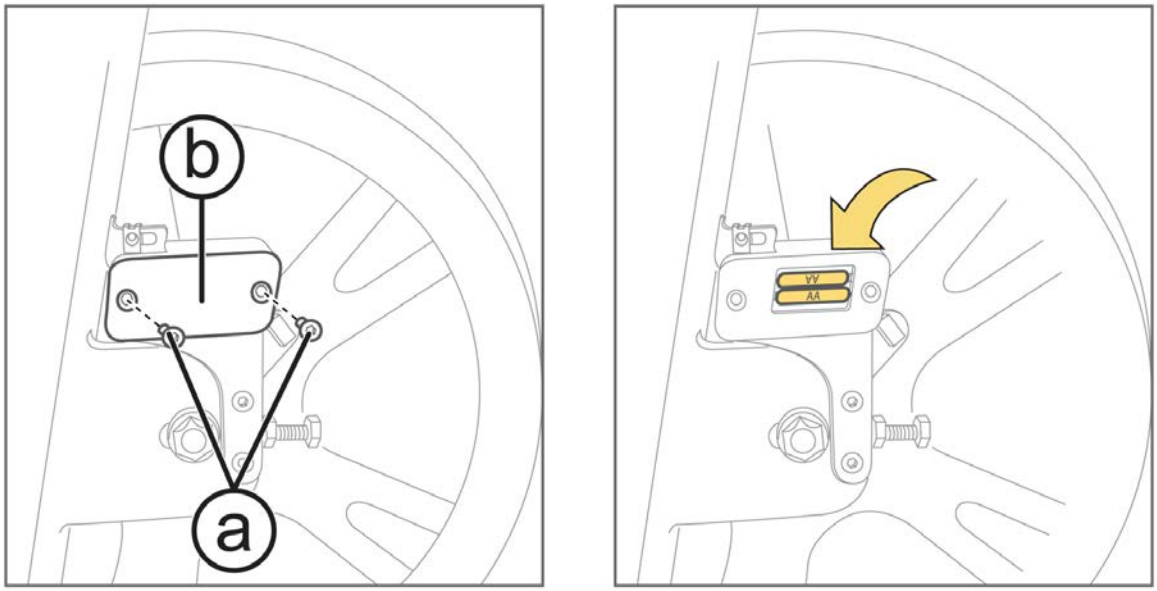


Figure 6.13-7

*Carry out the procedure described in paragraph: 6.4"Disassembling ", fino al punto **(3)**.*

1. Back off the 2 screws **(a)** using a 3mm hexagonal wrench.
2. Remove the cover **(b)** and replace the batteries if is necessary.

To reassemble the components removed,
carry out the above steps in reverse order.

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7 ADJUSTMENT

7.1 ADJUSTING THE CHAIN TENSION AND FLYWHEEL PARALLELISM

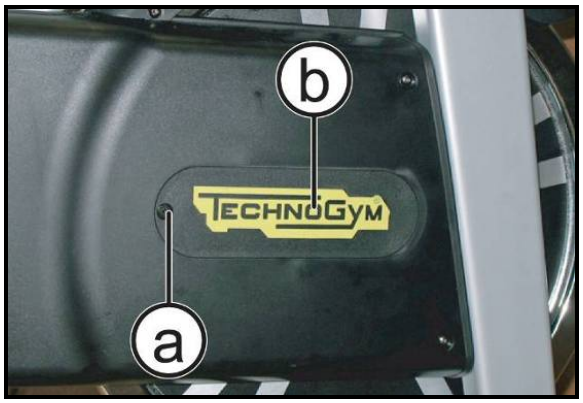

Figure 7.1-1

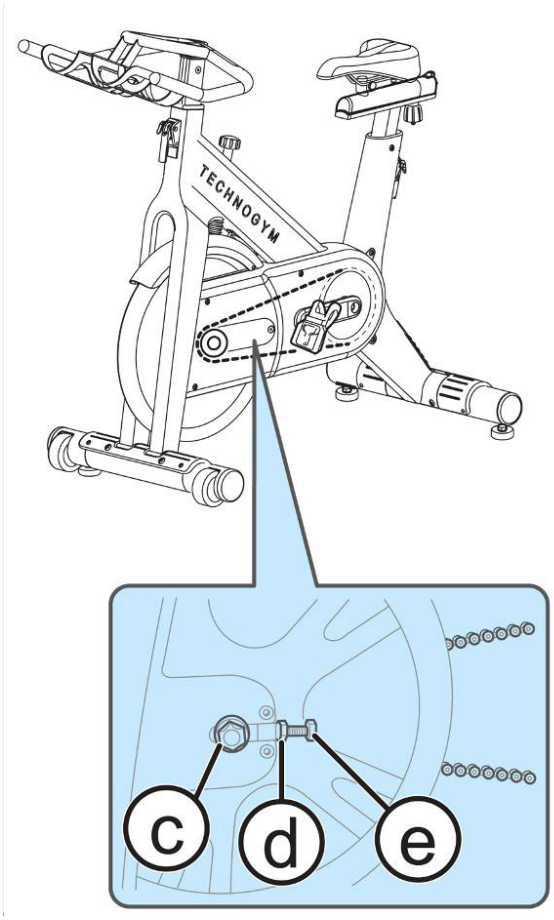

Figure 7.1-2

On both side of the machine:

1. Back off the screw **(a)**, using a 3mm hexagonal wrench.
2. Remove the guard **(b)**.
3. Loosen the nut **(c)** using a 19mm wrench and the counter nut **(d)** using a 10mm wrench.
4. *Screw* (or *back off*) the screws **(e)** to *increase* (or *decrease*) the chain tension, using a 10mm wrench.

Check the properly chain tension as indicated follows::

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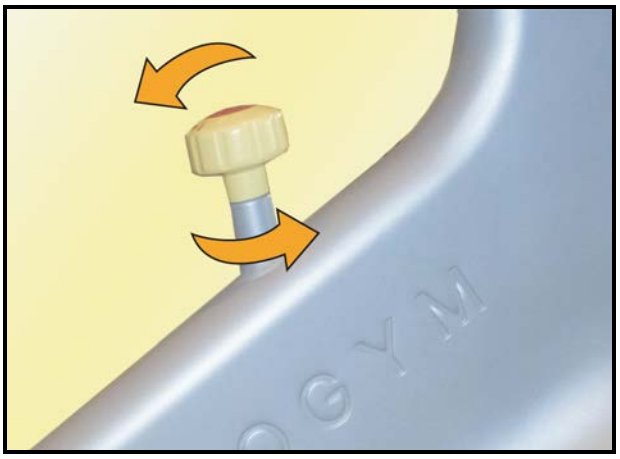

Figure 7.1-3

Block the flywheel completely by rotating to STOP.

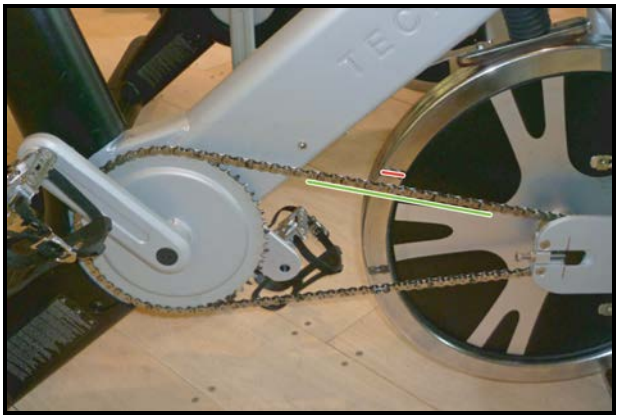

Figure 7.1-4

On chain side:

5. Make a mark on flywheel at the height of the resting chain (0mm).

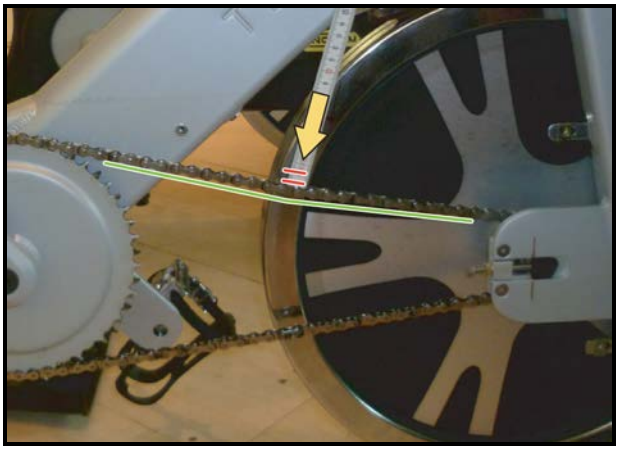

Figure 7.1-5

6. Press the chain with a wooden tape measure where previously marked and measure the gap in mm.

7. The chain tension is correct if the gap is about:

   - *New Chain:* ***11-13mm;***
   - *Use Chain:* ***12-14mm.***

8. Make the adjustment, lock-down the counter-nut **(d)** again using a 10mm wrench and the nut **(c)** using a 19mm wrench.

After each chain replacement, lubricate the chain, especially the new ones.

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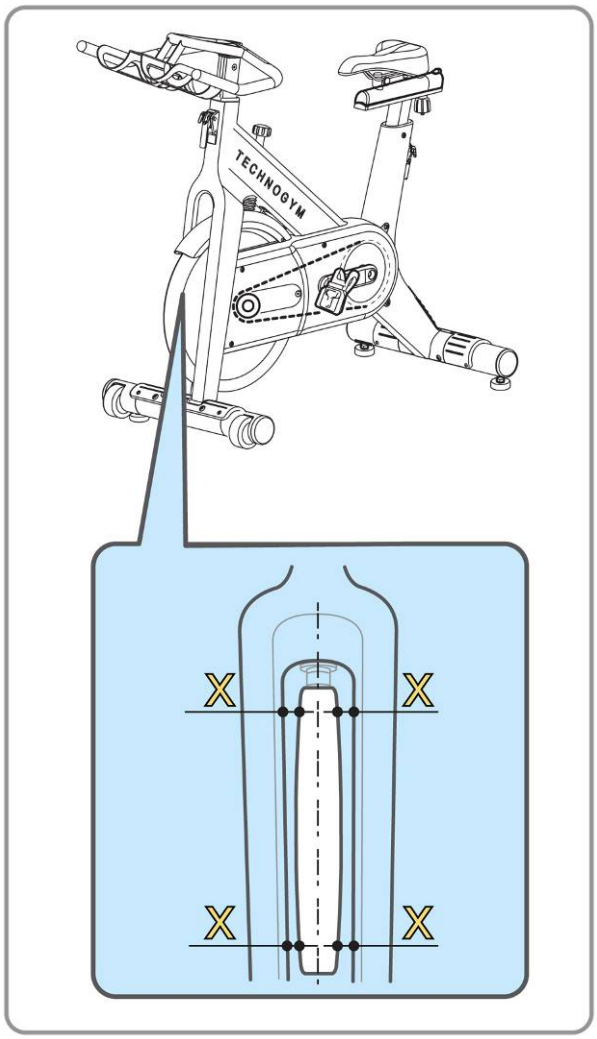

Figure 7.1-6

CAUTION: To adjust the chain tension is important to equally act on both sides of flywheel. The flywheel must be centred into the fork.

The flywheel must be centred in the fork; the "X" dimensions must be the same in all four positions.

7.2 ADJUSTING THE BELT TENSION

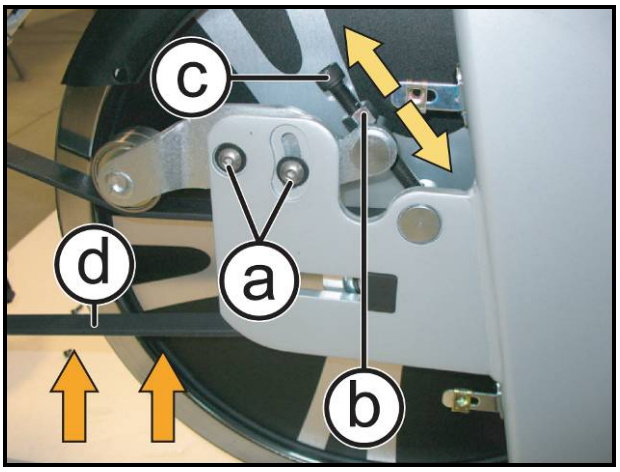

Figure 7.2-1

1. *Loosen* the 2 screw **(a)** using a 5mm hexagonal wrench.
2. Loosen the counter nut **(b)** using a 17mm wrench.
3. Adjust the belt tension, acting on the bolt **(c)** *screw* for *increase* the tension and/or *baking off* it for *decrease*.

WARNING: The right tension of belt must be: 85Hz±5Hz and must be detected on the long arm of the belt (d), as indicated by the yellow arrows in the figure at side.

7.3 ADJUSTING THE FLYWHEEL PARALLELISM (BELT VERSION)

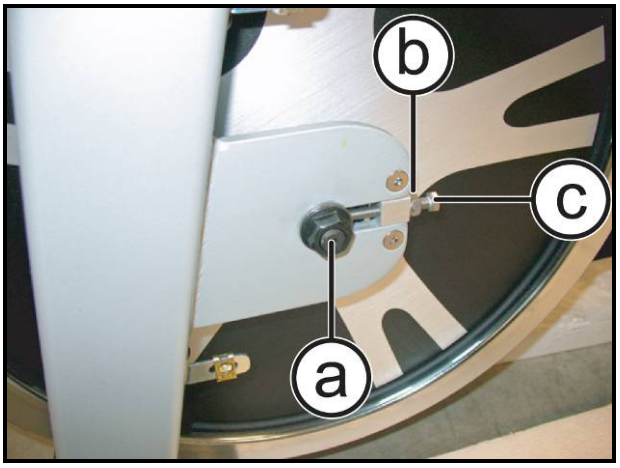

Figure 7.3-1

1. Loosen the nut **(a)**, using a 19mm wrench.
2. Loosen the counter-nut **(b)** using a 10mm wrench.
3. Adjust the parallelism of the flywheel screwing and/or baking off the screw **(c)** using a 10mm wrench

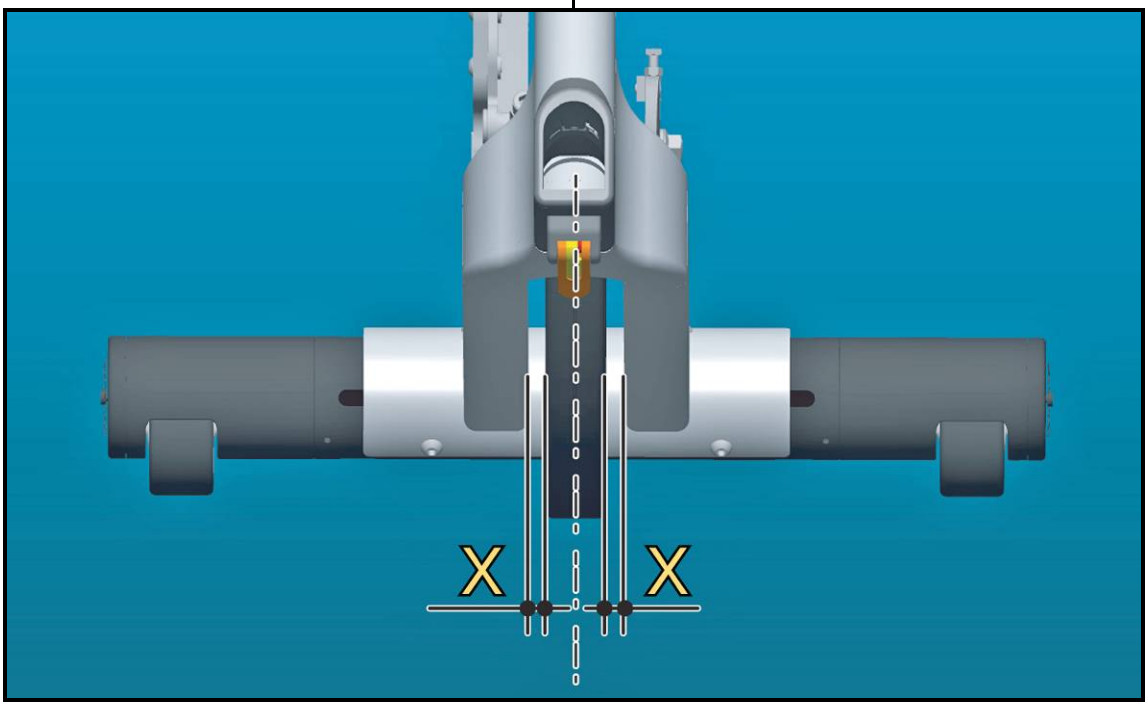

Figure 7.3-2

CAUTION: The flywheel must be centred in the fork; the "X" dimension must be the same in both positions.

Continued on following page...

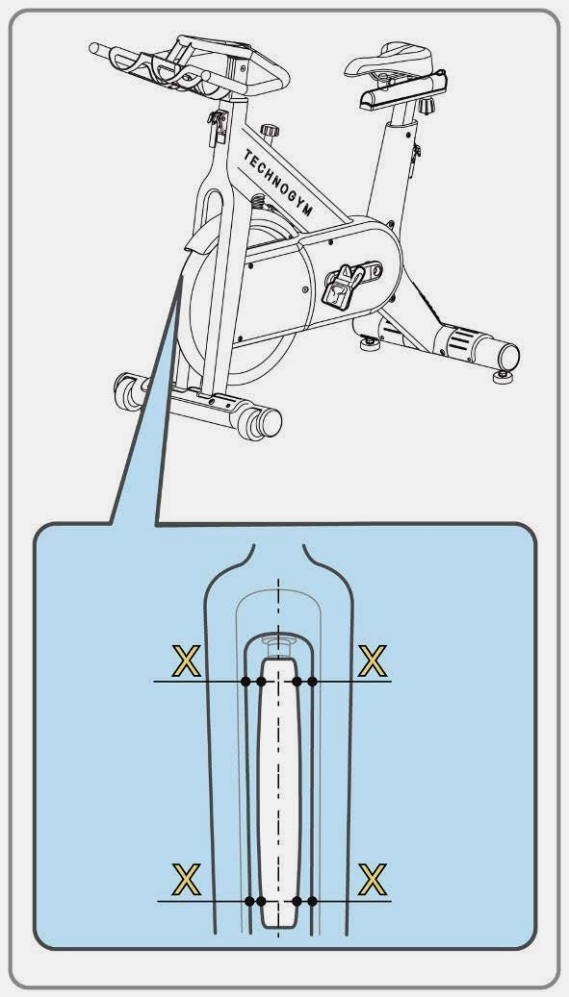

Figure 7.3-3

The flywheel must be centred in the fork; the "X" dimension must be the same in all four positions.

7.4 SADDLE PLAY ADJUSTMENT

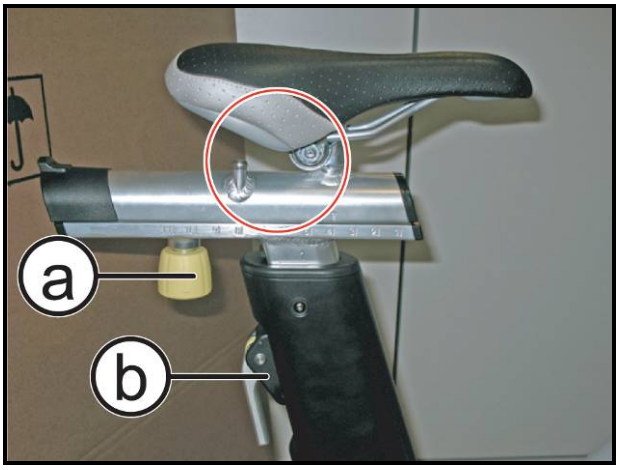

Figure 7.4-1

1. Check the tightening of the screws.
2. Check the play of clamping devices **(a)** and **(b)**.

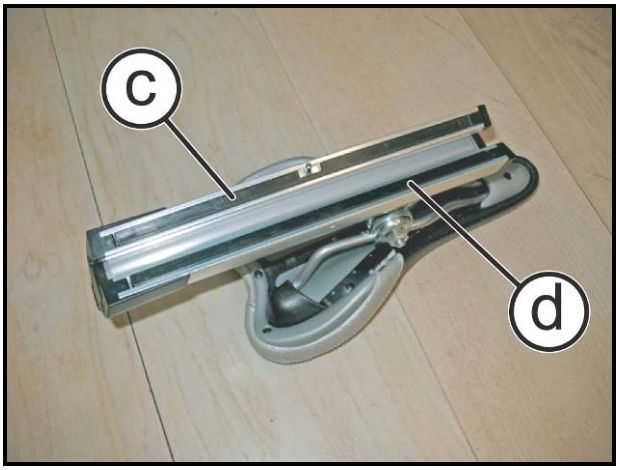

Figure 7.4-2

3. Check the state of wear of the plastic guides **(c)** and **(d)** placed under the saddle and replace them if necessary.

Figure 7.4-3

4. Check the state of wear of the saddle stem bushing **(e)** and possible play on it.
5. Check the state of wear of the saddle stem sleeve rack.

7.5 ADJUSTING THE SPRING TENSION OF THE BINDING

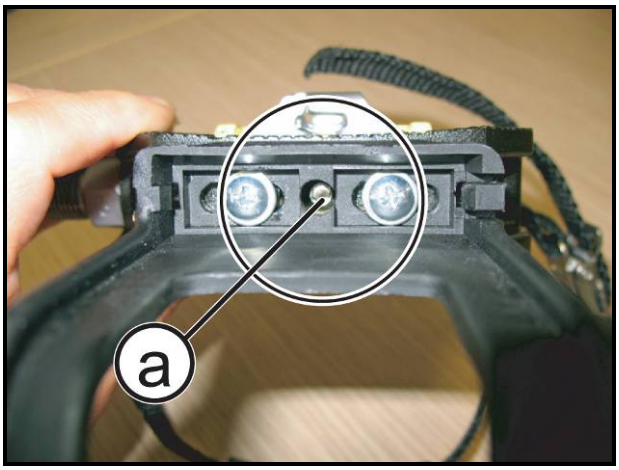

Figure 7.5-1

1. The spring force is adjusted by means of adjustment grub screw, which is located behind the binding. Equalize the tension by screwing or unscrewing the grub screw (**a**) using a 3mm hexagonal wrench, as highlighted in the figure

7.6 ADJUSTING THE BRAKING RESISTANCE

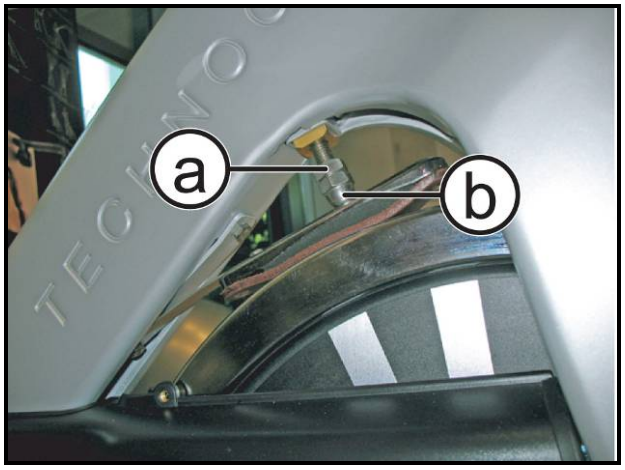

Figure 7.6-1

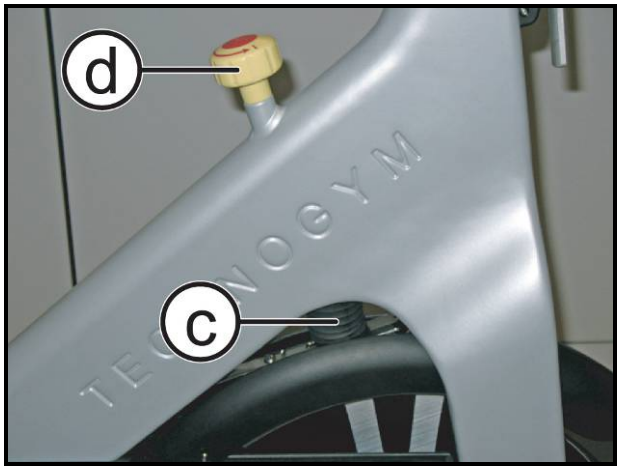

Figure 7.6-2

Carry out the operation at point (4) of Figure 6.7-2, at paragraph: 6.7.1"Disassembling brake knob".

1. Loosen the counter nut **(a)** and back off the close nut **(b)** of 1 or 2 turns counter-clockwise, taking care to keep it engaged of minimum 4 or 5 turns on the pin.

2. Lock down the counter nut **(a)** again.

3. Mount the protection guard **(c)** again.

4. Look completely down the brake knob **(d)** and check the flywheel is totally locked and it's not possible cycling.

With the knob completely unscrewed, the flywheel must be free to move without any resistance.

7.7 THE MACHINES IS NOT FLAT

This problem may be due to the positioning of the machine on a not flat surface. To resolve this problem is necessary to act on foot adjustment.

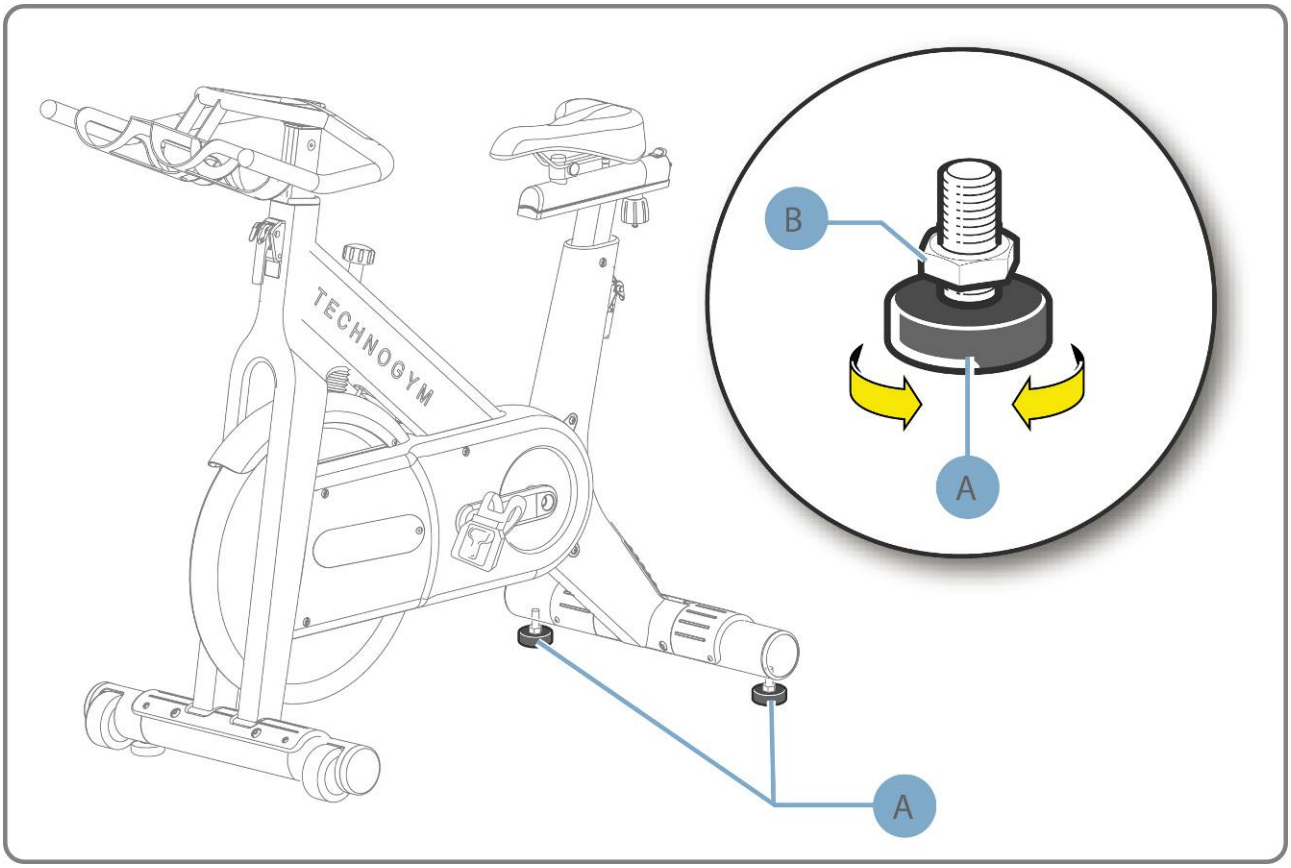

Figure 7.7-1

The machine is levelled by adjusting the two rear feet:

1. For each foot back off the lock-nuts **(b)** and screw or unscrew the foot **(a)** until the frame is in a stable position.

2. After completing the adjustment, tighten the lock-nut **(b)**.

8 SCHEDULED MAINTENANCE

To keep the machine in perfect working order and forestall possible problems, it is necessary to carry out the planned maintenance operations described below. These operations are essentially grouped according to the type of action and the technical skills needed perform them:

ROUTINE maintenance	*SPECIAL maintenance*
***ROUTINE** maintenance operations can be carried out by the **machine owner and do not require any special technical skills**; they consist in simple external cleaning for the purposes of general hygiene.* ☞ **Refer to the USER manual.**	***SPECIAL** maintenance operations may only be carried out by a **Qualified Technician specifically trained by Technogym** and authorized to perform machine adjustment and start-up operations, repairs and maintenance, and checks on the functioning and wear of mechanical components, in order to ensure correct and safe operation of the machine.* ☞ **Refer to the TECHNICAL SERVICE manual.**
ROUTINE MAINTENANCE. No special training.	**SPECIAL MAINTENANCE**: Qualified technician authorized by Technogym, and maintenance provided for in the Scheduled maintenance contract.

☞ **Refer to the SCHEDULED MAINTEANCE manual, that can be downloaded from TG DIRECT.**

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9 REQUIRED TOOLS

The following tools are required for carrying out the various disassembly, adjustment and maintenance action on the machine:

- *Small Phillips screwdriver;*
- *Medium Phillips screwdriver;*
- *10mm wrench;*
- *15mm wrench;*
- *17mm wrench;*
- *19mm wrench;*
- *3mm hexagonal wrench;*
- *4mm hexagonal wrench;*
- *5mm hexagonal wrench;*
- *6mm hexagonal wrench;*
- *8mm hexagonal wrench;*
- *Ring nut spanner;*
- *Torque wrench;*
- *Bicycle pedal extractor;*
- *Cutting nippers.*

You can order a complete set of hexagonal wrenches consisting of 7 pieces: 2, 2.5, 3, 4, 5, 6 and 8 mm. The code to be used is R0003677AA.

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