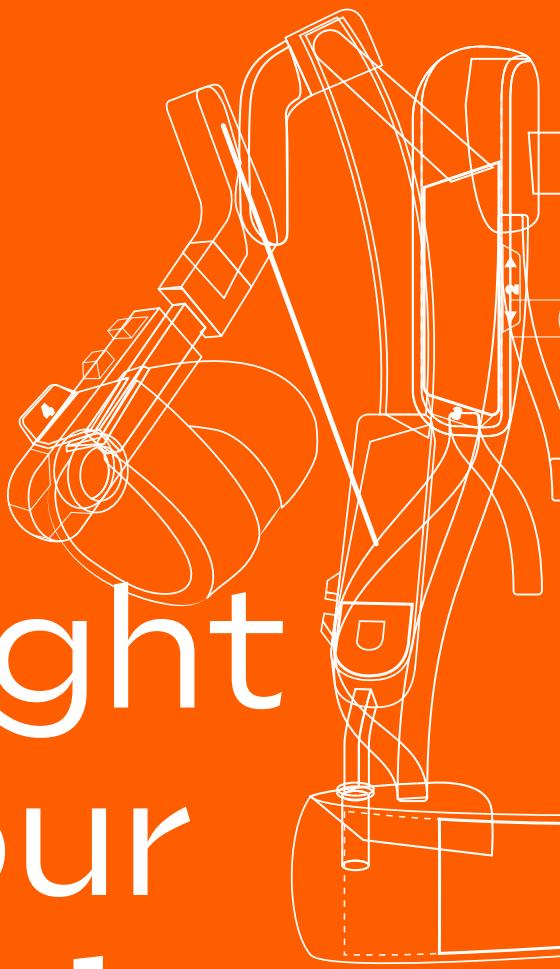
skelex

Instruction manual



Skelex **360**

A weight off your **shoulders**

Version ID# P7_250603EN

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We've got your back!

Thanks for choosing the Skelex 360! We're excited for you to experience how it can lighten your workload, helping you feel stronger and less fatigued throughout your day. Here's to more comfort and ease in everything you do!

The Skelex 360 is built to make overhead and front-facing tasks feel effortless. This non-powered exoskeleton supports the weight of your arms as you lift them, reducing strain and keeping fatigue at bay, especially during work that requires holding your arms up for longer periods.

Using gravity-balancing technology, the Skelex 360 feels weightless when your arms are at rest and smoothly adds support as you raise them. It works with your body, not against it, helping you move naturally and stay energized.
You can also fine-tune the level of support for each arm, so it always feels just right for you.

With the Skelex 360, you're not just wearing a tool, you're embracing the future of safer, healthier work.

Safety instructions

Please take a moment to read these pointers before putting on the exoskeleton. This manual will guide you through safe and effective use of your Skelex exoskeleton.

Understanding how to properly wear, adjust, and care for the device ensures not only your comfort and performance, but also the long-term durability of the product.

Build up usage gradually
Give your body time to adjust to the Skelex 360. Start slow and see how you feel:

- Day 1: Use up to 2 hours
- Day 2: Use up to 4 hours
- Day 3: Use for 6 to 8 hours

Always listen to your body. If you feel any discomfort, take a break and ease back into it when you're ready. Whether that's later in the day or the next working day. Still uncomfortable? Reach out to your dealer for advice and support.

Please use with care
To keep your Skelex 360 working at its best—and to stay safe—here are a few things to keep in mind:

- Don't stand or step on the Skelex 360 (or any of its parts).
- Avoid placing heavy objects on it.
- You can lean back against a chair or lie down with the Skelex on, but it's not really designed for that, so we recommend avoiding it.
- The Skelex 360 isn't a lifting device. Don't use it to lift heavy objects.
- Only use original Skelex parts for replacements. Unauthorized parts could put your safety at risk.
- Regular maintenance matters! Taking care of your Skelex 360 helps prevent avoidable accidents.

Stay safe while using your Skelex 360
To get the most comfort and protection from your Skelex 360, follow these simple tips:

- Take a few minutes to read this manual, it's worth it!
- Use the Skelex 360 only as it's meant to be used.
- Wearing it the wrong way can lead to discomfort, irritation, or even injury.

- Wear appropriate work clothing that meets your industry's safety standards.
- Keep hair, loose clothing, and any dangling items away from moving parts.
- Empty your pockets. Hard objects can get pressed between you and the Skelex 360.
- Never place your hands or fingers near moving parts.

Use extra care during these activities
While wearing your Skelex 360, stay mindful when:
- Running
- Climbing
- Driving any type of vehicle

These movements can feel different with the Skelex on, so take it slow and stay safe.

Keep your workspace safe
For the best experience with your Skelex 360, make sure your work area is:
- Clean, organized, and well-lit, following your industry's safety standards.
- Free of tight spaces where the Skelex could get caught or damaged.
- Far away from explosive environments or flammable substances, liquids, or gases.

The Skelex 360 works well both indoors and outdoors, within temperatures from -20 °C to 40 °C. (-4°F to 104°F). For details on visibility and resistance to water or oil, check the Technical Specifications chapter.

In case of an emergency
If something unexpected happens, remove the Skelex 360 right away and head to safety.

If CPR is needed, make sure to disengage and remove the device first.

When to stop using the Skelex 360 and reach out
Pause or stop using your Skelex 360 and contact your dealer if:
- You feel any discomfort, pain, or side effects.
- The Skelex doesn't feel as comfortable as it should.
- A part isn't working properly or looks broken.
- You notice any visible damage to the device.

Better safe than sorry. Your comfort and safety always come first!

Skelex 360: Overview

Product Name: Skelex 360
Article Number: 000-0009-0A

Arm cup
Arm cup interfaces
Height adjustment system
Plastics PA66-GF
flammability UL94: V-0

Grip labels
PVC

Harness
1680D Polyester fabrics
Nylon webbings
Elastics
PU Leather taps
PP & PE Sheets
ALU rivets

Technical information

Total weight	2,85 kg (6.28lb)
Supporting force	1 to 4,9 kg (2.2 to 10.8lb) per arm stepless
Working temperature range	-20°C to +40°C (-4°F to 104°F)

Skelex 360: Overview

NR	Article Code	Description	Material	QTY
	000-0009-0A	SX360	1680D Polyester fabrics, Nylon webbings, Elastics, PU Leather taps, PP & PE Sheets, ALU rivets	1
1	100-0052	Harness SX360		1
2	100-0043	FlexFrame Left		1
2a	100-0031	Spring Assy Left	PA66-GF, Alloy 6061, PUR, AISI 304, POM	1
2b	100-0050	Arm Cup Interface IM Left	PA66-GF, PA6, AISI 304, PUR	1
2c	100-0039	Force Adjustment Assy Left	Alloy 6061, PA6, Brass, PUR, AISI 304	1
2d	100-0038	Arm Cup Assy	PA66-GF, Neoprene sock, EVA padding, PVC GripLabel, AISI 304, POM, Nylon strap	1
3	100-0044	FlexFrame Right		1
3a	100-0046	Spring Assy Right	PA66-GF, Alloy 6061, CFRP, PUR, AISI 304, POM	1
3b	100-0051	Arm Cup Interface IM Right	PA66-GF, PA6, AISI 304, PUR	1
3c	100-0045	Force Adjustment Assy Right	Alloy 6061, PA6, Brass, PUR, AISI 304	1
3d	100-0038	Arm Cup Assy	PA66-GF, Neoprene, EVA, PVC GripLabel, AISI 304, POM, Nylon, Lycra	1
	200-0241	Modular Manual	Paper	1
	200-0242	PDS Skelex 360	Paper	1
	200-0222	Quick Start Guide	Paper	1
	200-0223	Warranty Card	Paper	1

Sizing and settings

Before putting the exoskeleton on, it is very important to set it to your personal body size. All adjustable elements on the product are labeled **blue**. Correct sizing and settings will improve the fit, function, and range of motion. Applying the right support force will ensure proper arm support while working.

1 **Belt settings**
Adjust the size of the belt.
• Your measure/sizing is visible next to the indicator in the center.
• Secure belt with buckle.

2 **Frame height settings**
Adjust the height of the Frames.
Hold the lower frame in one hand and pinch the adjustment knobs with the other hand.

Adjust the height of the spring so your body measurement is visible in the window.

Range adjustment
Small: 37cm to 47cm (14.6 to 18.5 inches),
Normal: 44cm to 54 cm (17.3 to 21.3 inches).

Release the pinch on the adjustment knobs. Notice the letter near the spring height setting. Use this letter for the arm length setting in step 3.

3 Arm length settings

Use the S, M, or L indicator from the previous step to set the arm length correctly.

Push the blue pinch knobs towards each other to release the mechanism. Slide the arm interface till the corresponding length is visible in the window.

Release the adjustment knobs and repeat for the other arm.

4 Support force settings

Adjust the supporting force according to your body weight. The force setting is related to your total body weight.

Use table left, for the right force setting for the Skelex 360.

The amount of support can be adjusted depending on the tools used, type of activity, and subjective preference. e.g. increase force when using heavy tools.

To adjust the arm support force, open the blue lever. Rotate the lever until the force indicator is at the desired position.

Place the blue lever back in the housing.

Repeat for the other arm.

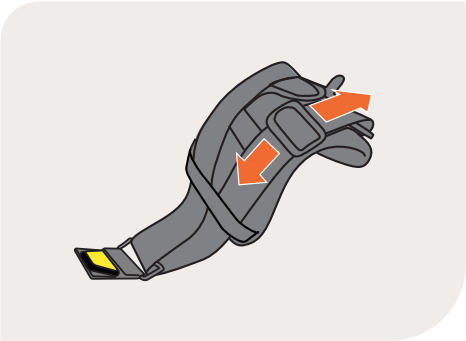
Body weight kg (lb)	Adjustment setting
50kg (110lb)	1
65kg (143lb)	2
80kg (176lb)	3
95kg (209lb)	4

Table force settings: Skelex 360

5 **Arm cup placement and adjustment**
Insert the arm cup by pressing in both blue buttons and slide them again horizontally in towards the arm cup axis.

Check the lock by trying to pull the arm cup from the arm to make sure the arm cup is properly locked in place and can still rotate.

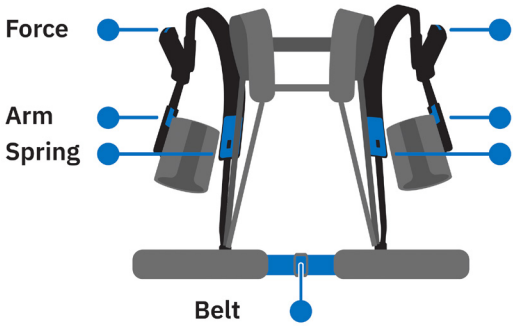
To tighten or loosen the arm strap, adjust buckle of arm cup straps. Make sure the strap does not pinch the upper arm.



Adjustments before use

Different situations can ask for different settings and desired amounts of support.

Before starting your work consider the following questions and make changes to your settings accordingly.



- Are you wearing extra (safety) clothing?
- Are you doing different work, that might need different support settings?
- Did you feel discomfort or looseness during your previous shift?
- Did someone else wear it after you last used it?

Your personal settings

Force	◯ 1	◯ 2	◯ 3	◯ 4
Belt length				
Spring height				
Arm length	◯ S	◯ M	◯ L	
Arm cup	◯ S	◯ M	◯ L	

Suiting up: follow the numbers

Make sure you went through all the **blue** steps for the right settings. Make sure the belt, frames, and arms are correctly sized to your body dimensions.

Follow the 4 **yellow** steps in the correct order to engage the exoskeleton.

Step 1: Strap the belt

Step 2: Lock the chest strap

Step 3: Pull the shoulder straps

Step 4: Engage the arm cups

Before putting the Skelex on:

- Open the velcro of the belt
- Open the chest strap buckle
- Loosen the shoulder straps
- Open the arm cup straps

Put the exoskeleton on
Put the exoskeleton on like a backpack by holding it at the shoulder straps.

Put it loosely over your shoulders.

Strap the belt
Secure the belt with some tension with the elastic parts on the pelvic bones.

Make sure the belt is symmetrically on your left and right hip.

Make sure the product is put on symmetrical on your back.

Engage and lock the chest strap

Secure the chest strap at a comfortable height.

Tighten the strap so the shoulder straps are away from the armpit.

Pull the shoulder straps
Tighten shoulder straps for a comfortable fit.

Ensure your clothing is not constraining movement of arms by moving your arms vertically up and horizontally. If necessary, loosen restricting clothing or adjust / loosen the straps.

Engage the arm cups
To engage the arm support, pull the GripLabel at the end of the arm cup strap down.

Place your upper arm on the arm cup. Wrap the strap around your upper arm.

Lock GripLabel in the hook of the arm cup.

All done?

Check the next page to see if everything fits how it's supposed to!

Check your fit!

Once the exoskeleton is on, make sure it fits properly and functions as intended. Check the following points carefully:

Arm cups
The arm cups should be in the middle of you upper arm, evenly spread on the upper arm and create a “V” shape. If it’s placed too close your armpit or elbow, it will cause discomfort and decrease functionality.

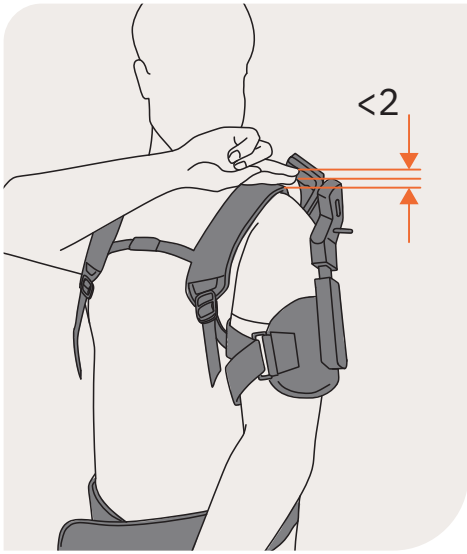
Make sure there is enough tension in the arm straps to avoid unlocking the GripLabel. Also avoid too much tension in the straps, to prevent pinching of the upper arm by the arm straps.

Belt
The belt must be tight enough, so it is not sliding down when the arms are lifted.
The belt hinges must be symmetrical on your waist and slightly to the rear.
The belt hinges should never touch your body.

Frame and harness

The shoulder strap should not feel tight or limit your range of motion. You can secure the shoulder strap by re-routing the end of shoulder strap webbing through the buckle.

When the arms are down, the distance between the spring and your shoulder must be 2 fingers wide.



If the space is less than 2 fingers:

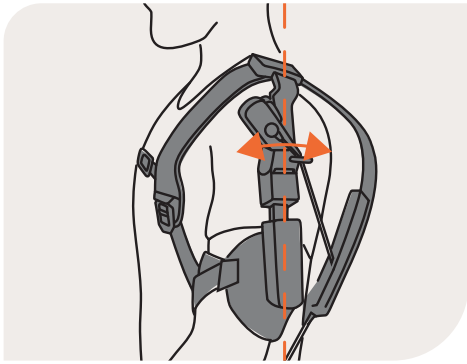
- Increase the height of the springs.
- Tighten the shoulder straps if they are loose.
- Reposition the belt at a higher position.

If the space is more than 2 fingers:

- Decrease the height of the springs.
- Loosen the shoulder straps a little if these are tight.
- Reposition the belt at a lower position.

The hinge should be above and centered with your shoulder center.

- When the hinge is in front of your shoulder, tighten shoulder connector strap or increase the length of the arms.
- When the hinge is behind your shoulder, loosen the shoulder connector strap or shorten the length of the arms.



Troubleshooting

The frames feel loose during use
If the FlexFrames feel loose during movement, tighten the back strap.

The frames rub the side of the shoulders
Increase the length of the back strap.

Frames are touching the back when the arms are lifted
Set the belt in a smaller size.
Ensure working in an ergonomic posture with your back straight.

Irritation of the arm cup
Minimal sliding of the arm cups is normal during use, but if it causes irritation due to excessive sliding, check if the product is adjusted correctly.

- Move the arm cup higher on your upper arm, away from your elbow.
- Tighten the arm cup strap.
- Shorten the length of the arm.
- Decrease force arm support.

Periodical checks

Daily pre-use checks
Before starting your shift, take a few moments to check your Skelex 360. A quick inspection helps keep everything working safely and smoothly:

- Make sure the cable protection lining and cable caps aren't damaged.
- Check that the carbon fiber springs have no visible cracks or damage.
- Ensure the main hinges move freely and smoothly.
- Confirm the belt hinge and harness connectors are properly secured.
- Inspect the harness and all its straps. They should be in good condition without any damage.
- Check that the arm cups are attached securely, and that the elastics and GripLabel show no signs of wear or damage.

Weekly checks
Once a week, give your Skelex 360 a little extra attention to keep it in top shape: Make sure the harness and all straps are clean and adjust smoothly.

- Move your arms and listen; there shouldn't be any squeaking sounds.
- Check that the force and size adjustments work smoothly and without resistance.
- Test the belt hinge and harness connections. They should unlock and relock easily.

These quick checks help your Skelex 360 stay comfortable, reliable, and ready to support you every day!

Maintenance and cleaning

For the best hygiene, Skelex recommends that each user has their own Softgoods set. This includes a personal harness and a set of arm cups.

Make sure to wash your Softgoods regularly and wipe down the FlexFrames before each shift. This helps keep everything clean and prevents the spread of germs between users.

Washing instructions: Softgoods

- Harness and textile components can be washed in a regular washing machine
- After inserting in a (Skelex) laundry bag.
- For best results use an industrial washing service for safety clothing.
- Dry harness in a dry surrounding out of sunlight.
- Dry harness on (cloth) hanger.

Domestic washing

- Machine wash max 30 degrees centigrade (max. 86°F).
- No chlorine, or bleach.
- Do not tumble dry.
- Do not iron.

Industrial washing

EVA pads are interchangeable and washable.

- Machine wash max 30 degrees
- centigrade.
- No chlorine, or bleach.
- Do not tumble dry.
- Do not iron.
- Dry padding out of sunlight.

Cleaning and disinfecting FlexFrames

Step 1: Remove both FlexFrames from the harness.
Step 2: Remove both arm cups.
Step 3: Spray FlexFrames with a disinfectant.
Step 4: Wipe FlexFrames with a dry cloth.
Step 5: Assemble the FlexFrames with the harness and continue use.

Unpacking and storing

Storing your Skelex 360
When you're done using your Skelex 360, a little care goes a long way in keeping it ready for next time.

Release the tension in the arms by moving them to their highest position before storing.

Always store your Skelex in a clean, dry, dust-free place, and out of direct sunlight.

Here are some safe ways to store it:
Make sure the arms aren't sticking out where they could get caught or bent.
Hang it on a coat hanger.
Place it in a clothes locker.
Store it in the shipping box.
Or simply lay it flat on a clean surface.
Want to save space? You can set the Skelex 360 to its smallest size for more compact storage.

Taking a moment to store it properly keeps your Skelex 360 in great shape!

Transporting your Skelex 360
When you're on the move, here's how to keep your Skelex 360 safe and sound:
Use the provided box or a similar rigid box for transport.

Wrap the Skelex in bubble wrap or another protective material to cushion it from bumps.

Always transport the Skelex clean and dry.

Before packing, release the arm supports by moving them to their highest position and minimize any tension in the arms.
Make sure the frames stay inside the packaging. Nothing should stick out.
For a snug fit, adjust the Skelex 360 to its smallest setting before packing.
A little extra care during transport keeps your Skelex 360 ready for action wherever you go!

Service and Repair

Need service or repairs? We're here to help!

For any questions about customer service or repairs, just reach out to your dealer or visit www.skelex.com.

Keep your serial number handy, it's needed for any service or repair. (You can find the serial number on the back of this booklet.)

All service and repairs should only be done by authorized repair personnel. Always use original Skelex replacement parts to keep your device working safely and properly.

No need to worry about lubrication, the Skelex 360 doesn't require it!

Need replacement parts?
For authorized replacement parts, just get in touch with your dealer. They'll help you find exactly what you need to keep your Skelex 360 in top shape!

Recycling and disposal
When it's time to say goodbye to your Skelex 360, don't just throw it away. Contact your dealer or reach out to Skelex directly at skelex.com for guidance on proper disposal or recycling. We'll make sure it's handled responsibly!

Warranty

Limitations of Warranty
Skelex cannot cover:

- Normal wear and tear, including colour fading, which can be caused by overexposure to sunlight
- Product damage or failure resulting from any use for which the product was not intended
- Product damage or failure resulting from incorrect or inadequate assembly, storage, maintenance, or care
- Product damage or failure from misuse, abuse, negligence, accidents, or shipping damage
- Dissatisfaction due to buyer's remorse
- Damages incurred during transportation by the User to and from the worksite

No Other Warranties Made or Implied
Skelex makes no express warranty or condition whether written or oral and Skelex expressly disclaims all warranties and conditions not stated in this limited warranty. To the extent allowed by the local law of jurisdictions outside The Netherlands, Skelex disclaims all implied warranties or conditions, including any implied warranties of merchantability and fitness for a particular purpose. For all transactions occurring in the United States, any implied warranty of condition of merchantability, satisfactory quality, or fitness for a particular purpose is limited to the duration of the express warranty set forth above.

Warranty Claims
All warranty claims must be filed by the original purchaser of this product with the authorized distributor, dealer, seller, or retailer of this product, who in turn is to contact the manufacturer (Skelex BV) regarding any warranty return or replacement. Please retain invoices for a minimum of one year for warranty purposes.

Disclaimers
Please read and understand all instructions carefully. Failure to comply with the instructions listed below may result in product failure or personal injury.

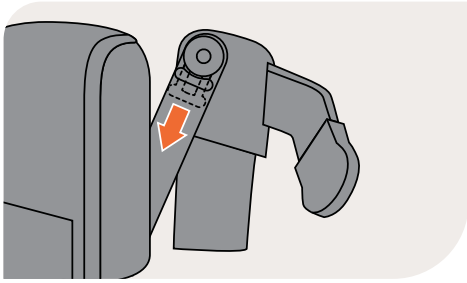
Skelex and its authorised distributors are not liable for any injury or damage suffered by any person, either directly or indirectly, as a result of violation of intended usage of the product.

Skelex and its authorised distributors do not accept any responsibility for any damage caused to its products, either directly or indirectly, as a result of use and/or repair by unauthorized personnel.

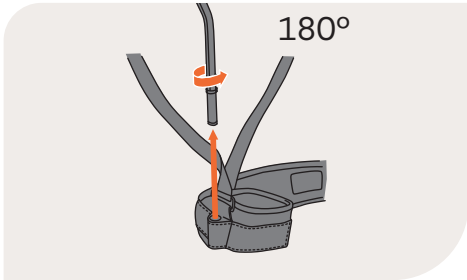
(Dis-)assembly

Removing the FlexFrames
There are 3 steps to remove the frames from the harness.

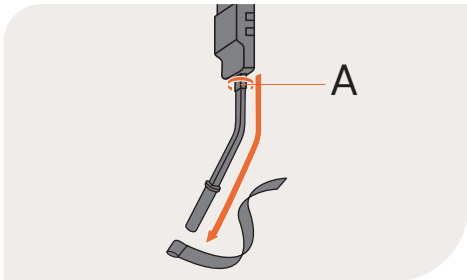
Step 1
Pull down Minax lock at the underside of the top of the spring. Detach the harness connectors from Minax.



Step 2
Rotate the frame 180° and pull out the belt connector to remove the frame.



Step 3
Remove the harness loop from the tube part of the height adjustment. Repeat this for the other frame.

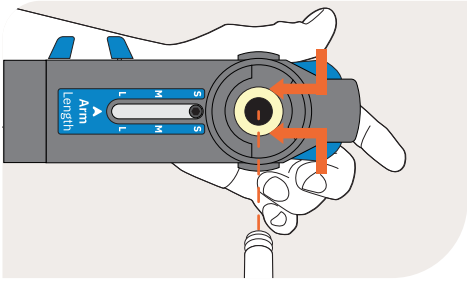


Installing FlexFrames
Follow all steps above in reverse order.

Make sure the harness loop is in the right position at the height adjustment (A).

Removing the arm cups
To remove the arm cup, press in both blue buttons and push them in towards the arm cup axis.

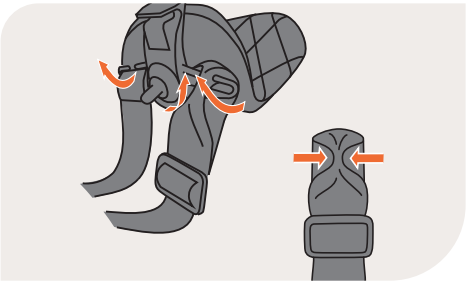
Pull out the arm cups from the arms.



Disassembling the EVA arm cups

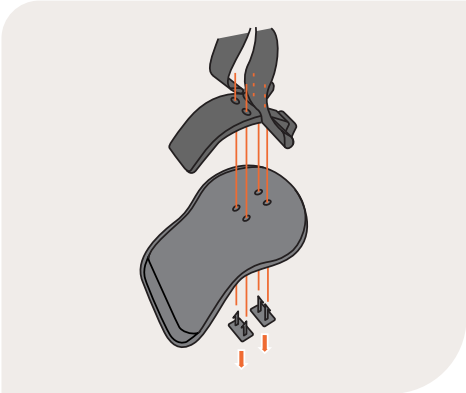
Re-route the elastic straps from the webbing.

Remove the strap from the hook. Pinching the webbing together makes this easier.



Remove the strap completely by removing the elastic part from the hook as well.

Remove clickers from the EVA padding by pinching the locks on the outside of the arm cup and pushing them out of the arm cup.



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Customer service

For any questions, issues, or support requests, please contact your dealer first.

If you do not receive a response within a reasonable time, you can reach out directly to us at info@skelex.com.

We're here to help.

Please register your Skelex 360:
www.skelex.com/service/register

Enter the serial number below to activate your warranty.

This product complies with the essential requirements and other relevant provisions of the applicable European directives. For full conformity information, please refer to the EU Declaration of Conformity, made available on our website. (www.skelex.com/service/downloads)

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This is your serial number:

Manual version: ID# P7_250603EN