

## original instructions for use



### body weight support device h/p/cosmos (airwalk)

BWS / unweighting device with optional fall prevention

#### models

#### product family: body weight support device h/p/cosmos airwalk

#### airwalk<sup>®</sup> ap

article number: [cos30028]

#### airwalk® It

article number:

[cos30028-lt]



development, production, sales & service:

#### h/p/cosmos sports & medical gmbh

Am Sportplatz 8 DE 83365 Nussdorf-Traunstein Germany phone +49 86 69 86 42 0 fax +49 86 69 86 42 49 service@hpcosmos.com

#### www.hpcosmos.com

h/p/cosmos EUDAMED ID: Economic Actor Manufacturer SRN: DE-MF-000006147

version of instructions for use version 1.4, revision 24.05.2023

IFU manual order-no.: [cos101676-en] **IMPORTANT! READ CAREFULLY BEFORE USE! KEEP FOR FUTURE REFERENCE!** 

The copyright of this document, media, design, software and intellectual property is owned by h/p/cosmos sports & medical gmbh, except where explicitly stated differently. Warning: All rights reserved. Unauthorized copying, reproduction, hiring, lending, public performance and broadcasting prohibited E&OE Errors and Omissions Excepted.

h/p/cosmos sports & medical gmbh Am Sportplatz 8 DE 83365 Nussdorf-Traunstein / Germany EUDAMED SRN: DE-MF-000006147 phone +49 86 69 86 42 0 fax +49 86 69 86 42 49 email@hpcosmos.com www.hpcosmos.com file: n:\article\cos101676-en\20230525\_cos101676-en\_hpcosmos\_airwalk\_ap\_cos30028\_unweighting\_ifu\_iim\_manual.docx

© 1988 - 2023 h/p/cosmos sports & medical gmbh author: joschka.zimmer@hpcosmos.com created 25.05.2023 printed 26.05.2023 page: 1 of 41



These instructions for use are only valid for the original configuration of the first delivery of the devices pictured below. Please refer to the latest version of this document, available at: www.hpcosmos.com https://www.hpcosmos.com/en/contact-support/media-downloads/manuals

These instructions for use are available on request as print version at service@hpcosmos.com

Changes of the original configurations of your device (updates, retrofitting of accessories, etc.) may result in invalidity of these instructions for use. In this case, always consider the last version of these instructions for use as well as the instructions for use of the retrofitted accessories (e.g unweighting vests, shorts and harnesses) and/or combined products, such as for example an h/p/cosmos treadmill.



It is strictly forbidden to perform any amendments of the technical design, technical specifications, labelling and configurations of this device and the accessories connected to it.

Any amendments, unauthorized, poor or lack of service / maintenance will result in loss of manufacturer's liability and warranty.

Latest field safety notes FSN and safety warnings are available on the h/p/cosmos website: https://www.hpcosmos.com/en/safety

Basic-UDI: 4050588cos30028RK

UDI-DI airwalk ap: 40505880023050 UDI-DI airwalk ap It: 40505880025276

EUDAMED SRN: single registration number DE-MF-000006147.





Franz Harrer President & CEO h/p/cosmos sports & medical gmbh

#### Dear customer,

Thank you for choosing this premium device.

Since its establishment in 1988, h/p/cosmos<sup>®</sup> has strongly influenced sports, athletics, ergometry, rehabilitation and science through the development and distribution of new products, software, system solutions, and application methodologies.

During this time the company, based in Traunstein, Germany, has developed into THE German specialist for manufacturing treadmill ergometers, unweighting devices and systems for fitness, sports, sports science, sports medicine, athletics, biomechanics, medicine, rehabilitation, therapy, ergometry, performance diagnostics, and scientific research.

Many developments and pioneering work from h/p/cosmos® have influenced not only product design and functionality but also their usage and methodologies.

Your success with our devices is the primary goal of h/p/cosmos®.

This is why we offer individual devices as well as comprehensive system solutions. You will find a wide range of options and accessories in these instructions for use and on our website www.hpcosmos.com

At h/p/cosmos, the quality and safety of our products is our highest priority.

These instructions for use include all of the information needed to operate the device correctly and safely.

Please read them carefully before use and keep them available at all times.

We hope you will have a lot of fun and success as you work with your h/p/cosmos device.

11.0

Franz Harrer President & CEO h/p/cosmos sports & medical gmbh









airwalk ap [cos30028] in combination with an h/p/cosmos treadmill and robowalk expander



airwalk It [cos30028-It] floor mounted pillar with possible installation example via ceiling mounted pulleys



1.	Symbols and labels	6
2.	Description	7
3.	Intended use	8
4.	Residual risk / Side effects (med)	10
5.	Forbidden Use / reasonably foreseeable misuse	10
6.	General safety requirements	11
7.	Emergency dismount / emergency release	12
8.	Application body weight support	13
9.	Application fall prevention and safety stop (optional)	19
10.	Trouble shooting	21
11.	Name plate	22
12.	Technical data	22
13.	Spare parts and consumables	25
14.	Intended / expected lifetime	25
15.	Disposal	26
16.	Installation	27
17.	Pneumatic tube routing	31
18.	explosion drawing and part list	33
19.	Options	34
20.	Labelling	37
21.	Packing	39
22.	Maintenance	40
23.	Contact	41



#### 1. Symbols and labels

#### 1.1 Symbols used (general)

CE	CE sign, proof for meeting the essential requirements according to medical device directive 93/42/EEC (MDD), replaced by GENERAL SAFETY AND PERFORMANCE REQUIREMENTS of ANNEX I medical device regulation (EU) 2017/745 (MDR) since May 26, 2021. CE sign, proof for meeting the Essential health and safety requirements relating to the design and construction of machinery according to ANNEX I EU directive 2006/42/EC (machinery directive)		
	<b>Danger</b> – hazard with high risk! In case this hazard is not prevented, it will lead to death or severe i	(ISO 3864-2) njury.	
	<b>Warning</b> – hazard with medium risk! In case this hazard is not prevented, it might lead to death or sever	(ISO 3864-2) e injury.	
	<b>Caution</b> – hazard with low risk! In case this hazard is not prevented, it might lead to minor or slight	(ISO 3864-2) injury.	
	Manufacturer	(ISO 15223-1)	
2020-09-30	Manufacturing date	(ISO 15223-1)	
8	Follow instructions for use	(DIN EN ISO 7010 M002)	
<b>A</b>	Potential equalization	(IEC 60445)	
	Separate collection for electrical and electronic equipment	(2012/19/EU)	

#### 1.2 Symbols used (transport, packing & storage)

	Fragile, Handle with care	(ISO7000-0621)
	This way up	(ISO7000-0623)
	Keep dry	(ISO7000-0626)
<b>+</b>	Centre of gravity	(ISO7000-0627)
Ĵ.	Temperature limitations	(ISO7000-0632)
	Do not stack	(ISO7000-2402)



#### 1.3 Labels and marking on device

In case of any visible or assumed wear and tear (of the device, accessories, labels, etc.), unplug device, exclude reconnection, mark clearly and inform h/p/cosmos service personnel via telephone and writing. Do not change or remove any labels!

Illustratio	n			Description	Order number
product family:	body weight	support device h/p/cosmos (airwalk)	CE		
model:	airwalk® a	ар	MD		
class:	S, I	compressed air supply: max. 10 bar		name plate	-
max. subject we	ight: 250 k	g / 551 lbs			
max. support weight: 90 kg / 198 lbs					
(21)cos30028-0001 / 2014-11-11 h/p/cosmos					
(11)141111 UDI (01)40505880023050 (01)40505880023050 (01)40505880023050 Made in Germany		UDI name plate with serial number, manufacturer and manufacturing date	-		

#### 2. Description

#### 2.1. Design

The h/p/cosmos airwalk ap is an unweighting device, also called "body weight support" (BWS) device, for partial body weight support (relief) with optional safety stop for fall prevention. Frequent applications are body weight supported treadmill trainings BWSTT.

The airwalk ap is made of powder coated steel. The component box is the connection between the rails and the two vertical adapters, which carry the two arches. The two arches carry the cable guide. Like a crane, the device is overlapping the treadmill in a height of approximately 2.75 m. The unweighting unit is integrated into one of the vertical adapters. A pneumatic cylinder is performing the weight support. The unweighting force is transferred via a static rope to the unweighting bar. The subject is wearing a special vest (harness, optionally chest belt and/or unweighting pants/shorts, which is fixed to the unweighting bar.

In order to support the subject, the unweighting vest is similar to a climbing harness with a high degree of comfort.



#### 2.2. Application

In neurological and also in orthopedic rehabilitation it is important for the patient to start exercising as early as possible. Therefore an individual and optimal unweighting system is crucial for the patient. Further applications are gait training, balance training and functional training under

unweighted and/or safe conditions without risk of falling. The h/p/cosmos airwalk unweighting system supports a natural gait pattern. The singlepoint suspension allows dynamic vertical movement when walking and at the same time allows freedom in movement and body rotations where wanted. Additional fixation straps for further stabilization may be utilized if desired and if recommended for the patient. The unweighting, depending on the progress of therapy, can be adjusted via a hand unit.

#### 3. Intended use

#### 3.1. Intended use

- Body weight support of a subject (during treadmill therapy / training)
- Fall protection of a subject (during treadmill therapy / training)
- Emergency stop in case of falling during treadmill therapy / training
- Balance training under unweighted and/or secured conditions
- Functional movement and gait training under unweighted and/or secured conditions
- Overspeed / hyperspeed and excess frequency training in athletics (only for sports applications)

Prescribed fall prevention device for any application where falling might cause an unacceptable risk (e.g. high speed or special applications, applications with subjects not able to support their weight properly, physically impaired, newly operated hip patients, invasive probes, osteoporosis, etc.)

#### 3.2. Intended operator

- Medical staff only (for medical applications, non-medical applications may be performed by non-medical staff as well)
- that has been carefully trained according to these instructions for use
- that is working according to the prescription of the medical doctor, where applicable and necessary
- The subject is not the intended operator.

But the intended operator is authorized to allow the subject to control the device according to the instructions of the intended operator and under the permanent observation of the intended operator.

This means the operation of the device remains the responsibility of the intended operator at all times, taking the physical and mental condition of the subject into account.

The intended operator has to be within reach of at least one emergency stop / off at all times

#### 3.3. Intended location

- Medical facilities only
- No use at home or in home healthcare environments (acc. to IEC 60601-1-11)
- No outdoor use
- No direct sunlight
- Sufficiently lighted for proper readability of warning, labels, displays and operation elements
- Proper environmental conditions (see "Technical Data")
- Stationary training equipment: Not moved during use

#### 3.4. Intended duration

Depending on the prescription of the medical doctor



#### 3.5. Contraindications

L

#### Absolute contraindications

(have to be excluded before the treadmill is used)

- Acute myocardial infarction (within 2 days)
- Instable angina pectoris
- Cardiac arrhythmia pathology and/or limited hemodynamics
- Symptomatic massive aortic stenosis
- Uncompensated / uncontrolled heart insufficiency
- Acute pulmonary embolism or pulmonary infarction
- Acute endocarditis, myocarditis, pericarditis
- Acute aortic dissection
- Acute coronary syndrome
- Acute phlebothrombosis of the lower extremities
- Febrile infections
- Pregnancy
- Acute thrombosis
- Fresh wounds e.g. after surgery
- Acute fracture
- Damaged disc or traumatic disease of the spine
- Epilepsy
- Inflammations
- Acute migraine

#### Relative contraindications

(The application may be started if the possible benefits exceed the risks.

- The decision has to be made by the medical doctor before the treadmill is used)
- Left main coronary stenosis
- Main artery disease
- Cardiac valve disease of moderate severity
- Known electrolyte imbalance
- Arterial hypertonia (RR > 200 mm Hg syst. > 110 mm Hg diast.)
- Tachyarrhythmia or bradyarrhythmia
- Hypertrophic cardiomyopathy and other forms of outflow tract obstruction
- Higher degree atrioventricular AV-blocking
- Anemia
- Physical and/or mental disabilities leading to inability to exercise adequately
- Partially invasive medical devices (probes, infusions, catheters, external fixators, etc.)
- Cardiac pacemaker
- Visual impairment (vision < 30% acc. to WHO)</p>

Further contraindications may occur. This has to be evaluated by the medical doctor. In case of relative contraindications permanent observation of the subject by medical staff is obligatory.

#### Sources:

http://leitlinien.dgk.org (German Cardiac Society) www.acc.org (American College of Cardiology Foundation) www.americanheart.org (American Heart Association) http://my.americanheart.org/idc/groups/ahaecc-internal/@wcm/@sop/documents/downloadable/ucm\_423807.pdf

The above list does not claim to be exhaustive. The decision as to whether a subject is suitable for treatment always comes under the remit of the physician in charge, who has sole medical responsibility for the treatment. As part of this, he must evaluate in particular, in each individual case, possible risks and side-effects of the treatment against the benefit gained from it. In addition, the subject's individual situation plays just as important a role as the basic risk assessment for specific patient groups.

Being a scientific discipline, medicine is subject to constant change in response to new knowledge and progress. It is therefore the task of the physician in charge to continually keep his knowledge up to date by reading the latest scientific literature and to acquire new knowledge during the course of treatment.



#### 4. Residual risk / Side effects (med)

After risk reduction most risks are "acceptable". Only a few risks remain "widely acceptable".

In case fall prevention is not applied or not applied correctly, there are residual risks, such as falling of a person resulting in skin abrasions, bruises, fractures or in worst case even death.

These risks may occur during use as well as when entering or leaving the device.

Furthermore there is residual risk such as unintended overload of the subject caused by wrong operation, wrong assessment, or wrong application of the operator.

The residual risk of trapping of clothes / shoes / fingers / hair or other body parts in moving parts can not be excluded as well. These risks are reduced by safety information within the IFU.

It cannot be excluded that unintended or forbidden use might cause further not yet regarded risks and that already regarded risks might have been estimated incorrectly. It can also not be excluded that the daily use of the medical product might show further risks.

For medical applications such as parallel bar gait training there are alternatives such as overground gait training secured only by the therapist. However, the benefit of parallel bar gait training contrast to these alternatives is clearly outweighing the residual risk of falling or overload with the known consequences utilizing this medical device.

In this risk analysis the "present state" of the device has been evaluated.

Having carried out the evaluation and validation of the product, the risk of appearance of a not acceptable risk is very low.

The device (it's construction, it's function as well as the intended application) does - under normal conditions - not represent any unjustifiable risk for the subject, the user, the operator or third persons.

However, the risk of injury or even death due to a malfunction of this medical device is very low.

In over 30 years of history and with many medical devices on the worldwide market, there has never been such a reported incident.

#### 5. Forbidden Use / reasonably foreseeable misuse

- Do not modify the system and do not connect to other equipment which is not explicitly declared as compatible by all involved manufactures.
- The system must not be used without carefully trained specialist staff and without the staff having been instructed on the safety regulations.
- The subject must interrupt the training immediately if he/she starts feeling sick or dizzy and should see a doctor.
- Subjects with cardiac pacemakers or any kind of physical restriction must see a doctor before using the system and ask for permission.
- In the event of any detected and/or assumed malfunctions and/or defects or unreadable safety warning labels, the device has to be taken out of operation, clearly marked as such and disabled. The supplier and authorized service personnel have to be informed in writing.
- Under no circumstances should a subject/patient or other user be overloaded or overstressed.
- All prohibitions in the chapter "General safety requirements".
- Other use than the explicitly mentioned intended use.



#### 6. General safety requirements

## 🕂 🕂 Danger

- The device has to be inaccessible for unsupervised children (<12 years).
- Incorrect or excessive training may result in injuries to health.
- Always make sure the device is installed on a stable and levelled base.

from standard EN 20957-1

- For any application where falling might cause an unacceptable risk (e.g. newly operated hip patients, invasive probes, osteoporosis, etc.) and subject weight > 100 kg, the chest-belt safety harness cos14903-04-xxx has to be applied additionally.
- Whenever a patient fell into the unweighting vest, it's stability cannot be guaranteed anymore, therefore it has to be replaced.
- Before adjusting the unweighting force always make sure, the rope is not slung around any part of the subject's body.
- The unweighting bar is freely movable; always make sure it does not hit the subject (e.g. the subject's head).
- Before connecting the device to a compressed air supply make sure the hand unit valve is closed, otherwise the unweighting bar will flip up immediately. Therefore unlock turning knob and turn counter-clockwise until stop.
- Disconnect device from compressed air supply for maintenance or cleaning in order to avoid unintended movements.
- Device must only be used by carefully trained, authorized and professional staff.
- Regard limits for max subject weight (see technical data / name plate).
- Regard the instructions for regular disinfection of the unweighting vest / safety harness after every training session (see "application").
- Do not use the device in combination with other than the intended devices (see technical data).
- Do not use the device in case any of the contraindications applies (see list of contraindications).
- Unauthorized modifications, service or maintenance is forbidden and will result in loss of any liability and warranty.
- Do not use the device in environmental conditions other than described in the chapter "technical data".
- In case of unconsciousness the subject has to be released immediately in order to avoid a suspension trauma.
- In case of any wear and tear the device has to be set out of order immediately
- In case of any detected or assumed malfunction, defect or unreadable safety label, the device is to be disengaged, marked and secured against operation immediately. Authorized service personnel has to be informed in writing.
- Use of the device is only allowed for persons correctly secured by the chest belt / unweighting vest. The estimation has to be performed by the therapist or medical doctor.
- Connection to pressurized air supply has to be accessible for any user at any time!
- Always check correct position of the slide with the subject! Subjects' knees must not touch running surface while suspended in vest / harness.
- Before deactivation of air cushion / fall stop mode, make sure the system is not under pressure.
- The intended location must provide a suitable potential equalization condition (e.g. PE-bolt).
- Rope has to be replaced by an authorized h/p/cosmos technician at least every 12 months or earlier in case of any visible or assumed damage.
  from risk management

Any serious incident that has occurred in relation to the device should be reported to the manufacturer and the competent authority of the EU Member State in which the user and/or patient is established. See also EUDAMED database: https://ec.europa.eu/tools/eudamed/#/screen/home

h/p/cosmos EUDAMED ID Economic Actor Manufacturer: SRN: DE-MF-000006147



step	picture	description
1.		In case the subject got unconscious during application, stop the treadmill and provide a chair / wheelchair under the subject.
2.		Use emergency release carabiners in order to release the subject from the unweighting bar.
3.		Therefore pull up the carabiner cord firmly.
4.	STORS C	Get the subject off the treadmill and render first aid.



#### 8. Application body weight support

#### 8.1. General functions

step	picture	description
5.		Increase unweighting force Turn control knob clockwise (pull knob if it is locked).
6.		Decrease unweighting force Turn control knob counter-clockwise (pull knob if it is locked).
7.		Setting of fall stop Pull knob and move slide up or down in order to adjust the position of the fall stop. Adjust the slide position according to the subjects' height. Subjects' knees should not touch running surface while suspended in vest / harness.





#### 8.2. Preventive maintenance











Put on chest belt cos14903-04-xx

Put on the chest belt so that the h/p/cosmos logo is at the front. In order to attach the carabiner, put the vertical belt (1) below the shoulder belts (2), facing the body, thereby unloading the seam at the joint (3).

## Marning!

If the chest belt is put on differently, it may loosen and it may not prevent from falling.

Always read instructions and warnings also of all accessories used!





6.	Set unweighting force Adjust the unweighting force by turning the control knob until the desired value is reached by the pointer. Start exercise. Warning! Keep subject under permanent supervision.
	End of treatment / training session
7.	Set back emergency stop position Instruct subject to stand on the feet and hold tight to the treadmill handrails. Pull knob und push slide upwards completely. Now the subjects' vertical movement is free.
8.	Lower subject (back to wheelchair) After exercise, turn control knob counter-clockwise carefully to reduce unweighting completely. If possible, ask the subject to support the process.
9.	Release subject from unweighting bar Make sure the subject either can stand stabile and firm or the subject is sitting in the wheelchair. Unlock karabiners. Remove vest and/or chest belt and/or neoprene tights/shorts.
10.	<u>Cleansing</u> The manufacturer of the unweighting vest recommends cleansing with a diluted disinfectant. The device itself should be cleaned according to the regulations of your institution. h/p/cosmos recommends Bacillol AF, order number [cos12179-01_0.5l].

Further information, pictures and videos can be found in the "user application manual - treadmill therapy in rehabilitation" https://www.hpcosmos.com/sites/default/files/uploads/documents/20230428\_cos14963-01-app-manen\_hpcosmos\_robowalk\_applicationmanual\_treadmill\_therapy\_en.pdf



step	picture	description
1.		Deactivate air cushion mode.
		Turn knob in horizontal position.
		Warning!
		Turn knob slowly and make sure the system is not under pressure
	0	
•		
2.		Connect device to active compressed air supply.
		Warning!
	Y ROLYAL	Before connection to active compressed air supply, make sure the system is not under pressure. Hand unit valve turned counter-
		clockwise completely!
3.		Remove unweighting bar
		Push red button to remove bolt.
		Attach one hook / carabiner to rope eye directly.
		Use provided extension slings if needed.
4.		Put on chest belt
		Put on the chest belt so that the h/p/cosmos logo is at the front. In
		order to attach the carabiner, put the vertical belt (1) below the
		shoulder belts (2), facing the body, thereby unloading the seam at
		the joint (3).
	www.s. G. vs.com	Warning!
	A B	If the chest belt is put on differently, it may loosen.
5	NE-	
J.		Use very light pressure in order to pull rope every to desired
		position.
		After step 4 the rope should be neither too tight nor too loose and
		allow an unrestricted walking / running style, without tension on the
		rope.

6.	<u>Use air cushion / fall stop mode</u> Turn knob in vertical position in order to close the valve. The rope eye will remain in the set position. Readjust if necessary.
7.	Set emergency stop position When subject stands upright, pull knob and move slide as low as possible without activating the safety stop. Now the subjects' vertical movement is limited. In case of falling, the treadmill will stop.
8.	<u>Check function with subject</u> Explain function to subject. Let subject go down as low as possible. Subjects' knees must not touch running surface while suspended in vest / harness UserTerminal shows "pull stop" message.
9.	Cleansing The manufacturer of the unweighting vest recommends cleansing with a diluted disinfectant. The device itself should be cleaned according to the regulations of your institution. h/p/cosmos recommends Bacillol AF, order number [cos12179-01_0.5I].



step	picture	description
1.		Rope too short (unweighting bar touching subject's head) Use extensions (see picture).
2.		<u>Control knob does not move</u> Knob is locked. Pull slightly to unlock. Please note: If knob is drawn off completely, simply push it on again.
3.		<u>Rope chafes / rubs</u> Call technician
4.		Optional emergency stop: Pull stop is activated during training Fall Stop position may be too low Move up slide for one position
5.		Optional emergency stop: Pull stop does not work Call technician
6.		Increased loss of pressure / frequent activation of compressor Call technician
7.		Tension of the rope while using fall-stop mode lower the position of the rope eye / safety harness make sure the balance mode is activated



#### 11. Name plate



#### 12. Technical data

Standard data in the box, optional solutions at extra charge under the box.

#### 12.1. Measurements airwalk ap

Length	240 cm (for treadmill 150)		
	260 cm (for treadmill 170)		
	280 cm (for treadmill 190)		
Width 180 cm			
Height	274 cm		
Mass	305 kg		
Weight load	≤ 2.5 kN/m² (incl. treadmill)		
Packaging	On request		
Optional solution for low ceiling height: on request			
Optional solution for subjects > 200 cm: on request			

#### 12.2. Measurements airwalk It

The measurements of airwalk It depend on the room situation and the way of installation for the ceiling mount pulleys.





#### 12.3. Performance data

Support	dynamic support approx. 0 90 kg (10 bar input pressure) 0 70 kg (8 bar input pressure) 0 50 kg (6 bar input pressure)			
Vertical range	75 cm (approx.)			
Rotation	360°			
Optional solution for more subject weight: 0 120 kg (less differentiated adjustment), [cos102492]				
Optional solution for more subject weight: 0 160 kg (less differentiated adjustment), [cos102493]				
Optional solution for more subject weight: 0 240 kg (less differentiated adjustment), [cos102494]				

#### 12.4. Subject data

Min. height	150 cm (options available)	$\Omega $		
Max. height	200 cm (options available) restrictions f. inclination >10%			
Min. weight	15 kg			
Max. weight	250 kg (options available)			
Optional solution for smaller subjects: extensions for min subject height < 150 cm.				
Optional solution for subjects > 200 cm: on request				
Optional solution for heavier subjects: on request				

#### 12.5. Control unit

Display	Analog manometer displaying bar, kg, lbs	
Operation	Control knob	
Accuracy	(options on request) 5 kg (options on request)	

#### 12.6. Accessories included



Always read instructions and warnings also of all accessories used!

Device folder	Including instructions for	use, etc.	× ×		
Unweighting vest	Size M chest 93 105	cm			
	cos10095-vest-M				
	(options available)				
Safety harness	Size M chest 85 115	cm			
chest belt	cos14903-04-M		80		/
	(with option emergency	stop)			
Option for smaller sub	ojects: unweighting v	est size XX	XS chest 6275 cm	cos10095-vest-XXS	
Option for smaller sub	ojects: unweighting v	est size XS	S chest 7684 cm	cos10095-vest-XS	
Option for smaller sub	ojects: unweighting v	est size S	chest 8592 cm	cos10095-vest-S	

file: n:\article\cos101676-enl20230525\_cos101676-en\_hpcosmos\_ainwalk\_ap\_cos30028\_unweighting\_ifu\_iim\_manual.docx © 1988 - 2023 h/p/cosmos sports & medical gmbh | Germany phone +49 86 69 86 42 0 email@hpcosmos.com author: j created 25.05.2023 printed 26.05.2023 page: 23 of 41

Option for bigger subjects:	unweighting vest	size L	chest 106114 cm	cos10095-vest-L
Option for bigger subjects:	unweighting vest	size XL	chest 116130 cm	cos10095-vest-XL
Option for smaller subjects:	safety harness	size XXS	chest 4565 cm	cos14903-04-XXS
Option for smaller subjects:	safety harness	size XS	chest 5575 cm	cos14903-04-XS
Option for smaller subjects:	safety harness	size S	chest 6595 cm	cos14903-04-S
Option for bigger subjects:	safety harness	size L	chest 105135 cm	cos14903-04-L
Option for bigger subjects:	safety harness	size XL	chest 125155 cm	cos14903-04-XL
Option for agile subjects:	neoprene shorts	size S	waist 5592 cm	cos10095-neo-S
Option for agile subjects:	neoprene shorts	size M	waist 93105 cm	cos10095-neo-M
Option for agile subjects:	neoprene shorts	size L	waist 106114 cm	cos10095-neo-L
Option for agile subjects:	neoprene shorts	size XL	waist 115123 cm	cos10095-neo-XL
Replace after two years of usage or 4 years after manufacturing or earlier in case of any visible or assumed damage.				

#### 12.7. Compatible treadmills

treadmill h/p/cosmos 150/50 (pluto / mercury)	
treadmill h/p/cosmos 170-190 (quasar / pulsar)	
treadmill h/p/cosmos 170-190 3p (quasar / pulsar)	
treadmill h/p/cosmos 200-300/75-125 (venus / saturn)	
airwalk It, only	
other treadmills on request and only after written	
confirmation through h/p/cosmos	

#### 12.8. Environmental conditions

Transport and storage			
Temperature	-30 +50°C		
Humidity 0 95 % without condensation			
Barometric pressure	700 1060 hPa		
Operation			
Temperature	+10 +30°C		
Humidity 0 70 % without condensation			
Barometric pressure	700 1060 hPa		





#### 12.9. Normative data

Usage class (acc. EN 20957)	Class S (prof./commercial) Class I (special needs)	
Mechanical safety	EN 20957-1	C
Pneumatic safety	IEC 60601-1, clause 9.7	ð
Requirement for CE	MDR (EU) 2017/745	N N
conformity	EU directive 2006/42/EC	U
Risk class	Class I	
(acc. to MDR)		

#### 12.10. Further data

comp. air coupling	according to ISO 4414
comp. air supply	max. 10 bar according to
	ISO 8573-1:2010
compressor	optionally available
	(compressed air supply is required
	in order to use the airwalk)
	compressor recommendation: oil free and silent pressure 8 bar or 10 bar performance output 50 liters / min or more tank volume 3.5 liters or more
rope	PES/PE-rope, Ø 6mm
frame color	pure white RAL 9010
noise emission	max. 50dB
	(with h/p/cosmos compressor)
Option for other frame	e color: on request

#### 13. Spare parts and consumables

Since all kinds of installation and repair work and most maintenance work are to be performed only by trained and authorized technicians, information about spare parts and consumables is only available through the h/p/cosmos service team: service@hpcosmos.com

https://www.hpcosmos.com/en/products/service

#### 14. Intended / expected lifetime

Base frame	10 years	These data are only valid for the intended use, provided, that the
Rollers	10 years	recommended maintenance intervals are kept and every maintenance and
Pneumatic components	10 years	
Wests / Pants	2 years usage	
	4 years max.	
Rope	1 year	



#### 15. Disposal

Upon request and at the expense of the client, h/p/cosmos might perform the disposal of old or defective devices. Please contact service@hpcosmos.com for a detailed offer.

Our devices consist of powder-coated and galvanized metals from different producers and qualities, stainless steel parts, aluminum parts, plastics, rubber, electronics with cables, boards and condensers as well as batteries. These materials can be recycled at the official municipal recycling depot or by authorized disposal companies.



#### 16. Installation

step	picture	description
1.		<ul> <li>Material needed:</li> <li>set of allen keys <ul> <li>(310mm)</li> <li>2x fork wrench, 17mm</li> <li>1x fork wrench, 19mm</li> <li>2x fork wrench, 24mm</li> <li>Torque wrench 85Nm with 10mm Allen key</li> <li>some cardboard</li> <li>second person for support (steps 4+5)</li> </ul> </li> </ul>
2.		Compare the delivery note with the delivered device. All parts (device, accessories, device folder, etc.) have to be complete and without damage.
3.		Overview         (1)       Component box         (2)       2x adapter         (3)       2x arch         (4)       Cable guide         (5)       Pulley + cover         (6)       Rope         (7)       Adjustable stop         (8)       2x rail         (9)       Unweighting bar         NOTE: the adapter with attached hand unit as well as the arch with adjustable stop is placed on the right-hand side in standard configuration (as depicted).







12.		Connect rope eye to the unweighting bar with the locking pin. Press red button, put pin through hole <u>completely</u> , release red button. Make sure the detents prevent sliding out of the locking pin.
13.	without illustration	Perform function control. Use checklist from chapter: "maintenance"
14.		Mount cover sheets and plugs: - cover sheet component adapter backside (A) - 2x cover sheet component adapter (B) - cover sheet arch (C) - cover sheet cylinder connection (D)
15.	aruali	Install the treadmill acc. to the installation manual of the treadmill. The adjustable feet of the treadmill should fit into the gaps of the floor plates.
16.	(	Connect potential equalization
17.	without illustration	Perform function control according to "maintenance" check list.







18. explosion drawing and part list







no.	picture	description
8.		Installation of unweighting components on left side: - Adapter with hand-unit and adjustable stop to be mounted on left side - be aware of the correct rope alignment along arch and cable guide module.
9.		Air cushion / fall stop mode: - remove supply tube from cylinder and cut at 92mm - insert air cushion valve - Fix distance bolts to flange plate (cut thread if needed) - Screw valve on the distance bolts with 2x lens head screw M4x25 - Fix cable and tube with 3x cable tie





#### Emergency stop: -Screw emergency stop switch in thread on the stop slide and fix the cable with a cable tie at the edge

- Guide the cable through the hole at the top of the adapter.

- Connect emergency Stop plug to treadmill. Position of socket depends on device (UserTerminal or front of device below motor cover).





robowalk expander front: article no.: cos30022-02va04

- mount connection flange to flange plate (use 8x M10x30) (A)

- mount robowalk horizontal bar to connection flange (B)



#### 20. Labelling

Label	order number and description	position on the device
Definite thermity:       Independent data higherman (almund)         mode:       indepndent data higherman (almund)         m	To be placed on the component box front, 20mm from top edge in the upper right corner	
Short instructions unweighting: CAUTION/WARNING and Application "body weight support"	cos102564-01-en "short instructions" To be placed on the outer side, 20mm form the bottom edge of the "arch".	
Emergency stop	cos102564-01-en "emergency stop" To be placed 10mm on top of "short instructions" (only in case option is installed)	
push to lock	cos102564-01-en "operating PUI" To be placed just around the turning knob.	
exercise mode Turn knob slowly! Unweighting bar may move! tost0256401-mj www.h-p-cosmos.com	cos102564-01-en "air cushion mode" To be placed 20mm right of the air cushion / fall stop valve.	
In picosmos	"scale kg/lbs PUI" To be placed just around the manometer. scale range: 100 kg: cos102415-01 150 kg: cos103489-01 200 kg: cos103950 300 kg: cos103951	
Date: Company: Signature: [cost010684-en] www.h-p-cosmos.com	cos101684-01 "rope exchange" After rope exchange fill out the label and attach it to the corresponding position on cos102564-01-en "short instructions"	

file: n:\article\cos101676-enl20230525\_cos101676-en\_hpcosmos\_ainwalk\_ap\_cos30028\_unweighting\_ifu\_iim\_manual.docx © 1988 - 2023 h/p/cosmos sports & medical gmbh | Germany phone +49 86 69 86 42 0 email@hpcosmos.com author: j created 25.05.2023 printed 26.05.2023 page: 37 of 41

hip/cosmos sports indicial gmbh Am Sportpaize 8 DE 83355 Hussehr T-raunstein Germany phone 448 668 968 42 0 fax +49 86 69 86 42 0 email@h-p-cosmos.com www.h-p-cosmos.com youtube.com/hpcosmos hustic.com/hpcosmos hustic.com/hpcosmos hustic.com/hpcosmos	cos10144-01 "address label" to be placed on right adapter 20mm above flange plate	
h/p/cosmos	cos10941 "label h/p/cosmos blue" to be placed on stiffening plate of adapter without cylinder, outside, centered	
airwalk®	cos102192 "label airwalk plotted" to be placed on cover sheet of component adapter base plate, centered	





Packing on pallet: isometric view



Packing on pallet: top view (fixation straps in red, dotted lines when covered by components)

#### 22. Maintenance

General			
Serial number		Date	
Technician		Company	

Checklist		Signature
1. Device cleaned (incl. surfaces)		
2. Labels checked (replaced if needed)		
3. Rope replaced (signed label placed on device – blank label in device folder)		
4. All tubes checked for wear and tear		
5. All screws fastened		
6. If applicable: compressor checked acc. to separate instructions		
7. Function control performed: Check		
- All caps and covers fixed and in position		
- Piston rod (1.) moves freely		
- Pulleys (2.) move freely		
- Rope (3.) does not chafe		
- Unweighting force adjustable via hand unit (4.)		
- Slide (5.) is moveable all the way from top to bottom		
- Locking pin (5.) locks in sliding rail holes		
<ul> <li>Safety stop stops treadmill (in case option is included!)</li> </ul>		
- Treadmill parts and accessories do not collide when inclined		
- Hand unit: "0 kg" mark coincides with "1 bar" mark on manometer		



#### 23. Contact

For any service or sales enquiries, please have the model type and serial number of your device ready. For service support, we recommend using MS Teams or Skype with webcam.

0	
Se	rvice
~ ~	

phone fax	+49 18 05 16 76 67 +49 18 05 16 76 69	(0.14€/min from German landlines, max. 0.42€ from German mobile networks)
email	service@hpcosmos.com	
Skype	@hpcosmos.com (search & select name)	
Sales		
phone	+49 18 05 16 76 67	(0.14€/min from German landlines, max. 0.42€ from German mobile networks)
fax	+49 18 05 16 76 69	
email	sales@hpcosmos.com	
Skype	@hpcosmos.com (search & sel	ect name)
h/p/cosmo	os sports & medical gmbh	
Am Sport	olatz 8	
DE 83365	Nussdorf-Traunstein, Germany	
phone	+49 18 05 16 76 67	(0.14€/min from German landlines, max. 0.42€ from German mobile networks)
fax	+49 18 05 16 76 69	
email	email@hpcosmos.com	
web	www.hpcosmos.com	

