

momo therapy bicycle.



Instructions for use.

momo therapy bicycle. The bicycle for more balance.




schuchmann®

Many thanks.



Dear Customer

At this point we would like to thank you for placing your trust in our company and for purchasing our product. We ask you to read through the Instructions for use carefully prior to initial commissioning of the product, and to observe them. Please note that guidelines and representations in these Instructions for use may deviate from your product due to differing equipment. We reserve the right to make technical modifications.

Important information!

Ensure that these Instructions for use remain with the product.

Your **schuchmann** Team



1. Preparation.	06
1.1 Delivery	06
1.2 Safety measures prior to use	06
1.3 Safe disposal	06
1.3.1 Packaging	06
1.3.2 Product	06
1.4 Where to store the Instructions for use	07
2. Product description.	07
2.1 General information	07
2.2 Symbol descriptions	07
2.3 Handling and transport	08
2.4 Application areas, use according to the intended purpose	08
2.4.1 Indications	09
2.4.2 Contraindications	09
2.5 Use not in accordance with the intended purpose / warning guidelines	010
2.5 Equipment for basic model	011
2.6 Product overview	011
2.7 Overview of equipment / accessories	12
2.9 Drive possibilities	18
2.10 Adjusting the stabilisers	19
2.11 The initial riding attempts	19
3. Settings.	20
3.1 Presettings	20
3.1.1 Handlebar adjustment	20
3.1.2 Saddle adjustment	21
3.2 Brakes	22
3.2.1 Parking brake	22
3.2.2 Round handlebars with brake lever ring	23
3.2.3 Round handlebars with brake function	23
3.2.4 Drum brake in front wheel	23
3.2.5 Backpedal brake	23
3.3 Tyres and hoses	24
3.4 Chain tension	24
3.5 Light system / dynamo	24
4. Accessories.	25
4.1 Dynamic back and pelvic guide pelotte pads	25
4.1.1 Width adjustable back and pelvic guide pelotte pads	25
4.2 Headrest	25
4.3 Push bar	26
4.4 Parking brake for accompanying escorts	26
4.5 Steering for accompanying persons	26
4.6 Handlebar lock limiter	27
4.7 Holding bracket with mount	27
4.8 Universal adapter	28



4.9 Crank shortener (continuously adjustable)	28
4.10 Crank shortener	28
4.11 Special crank for knee contracture	29
4.12 Exercise bike pedals	29
4.13 Foot positioning pedals	29
4.14 Foot pans	30
4.15 Foot pans with leg guidance	31
4.16 Foot pans with dynamic leg guidance	31
4.17 Chest strap	32
4.18 Positioning vest	32
4.19 Groin harness, T-shaped	33
4.20 4-point pelvic harness	33
4.21 Hand positioning aid	33
5. Electric drives.	34
5.1 Components	34
5.1.1 Engine	34
5.1.2 Battery and charger	34
5.1.3 Control housing and control system	34
5.1.4 Display	34
5.1.5 Torque sensor	34
5.2 Lithium-ion battery	35
5.2.1 Charging	36
5.2.2 Insertion or removal	38
5.2.3 Service life	38
5.2.4 Sleep mode	38
5.3 Display and operation	39
5.3.1 Switching on	39
5.3.2 Switching off	40
5.3.3 Light On/Off	40
5.3.4 Start-up assistance	40
5.3.5 Setting the assistance levels	41
5.3.6 Charge level indicator	42
5.3.7 Error code	42
5.3.8 Display readings during operation	43
5.4 General settings	44
5.4.1 User settings	44
6. Cleaning and servicing.	46
6.1 Cleaning and disinfecting	46
6.1.1 Cleaning	46
6.1.2 Disinfection	46
6.1.3 Chain maintenance	47
6.2 Servicing / controls	47
6.3 Maintenance	47
6.3.1 Maintenance specifications	47
6.3.2 Maintenance plan	48
6.4 Repairs	49

6.5 Controls.....	49
6.6 Storage.....	49
6.7 Spare parts.....	50
6.8 Duration of use and re-use.....	50
6.9 Error messages and troubleshooting	51
7. Technical data.	53
7.1 Dimensions	53
7.2 Tyre pressure.....	53
7.3 Torque information	53
7.4 E-drive	54
7.5 Lighting system	55
8. Guarantee.	56
9. Identification.	57
9.1 Serial number / date of manufacture.....	57
9.2 Product version.....	57
9.3 Issue of the document	57
9.4 Name and address of the manufacturer, specialist dealer sup- plying the product	57



1. Preparation.

1.1 Delivery

On receiving the product, please check it for completeness, lack of faults and any transport damage. Inspect the goods in the presence of your forwarder. Should transport damage have occurred, please arrange for an inventory (determination of the faults) to be made in the presence of the forwarder. Please send a complaint in writing to the specialist dealer responsible.

1.2 Safety measures prior to use

The correct use of the product requires detailed and thorough instruction of the user or the accompanying person. We ask you to read through the Instructions for use carefully prior to initial commissioning of the product, and to observe them. Screws may have loosened during transport. Before initial operation, ensure that all screws are properly tightened to the torque values specified on the respective components, if applicable. It is possible that product parts that get in contact with the skin may heat up in the sun. Depending on the duration and intensity of solar radiation, the surfaces of individual parts can heat up to over 41°C and thus lead to slight burns in the event of direct skin contact. Therefore cover these areas or protect the device from direct sunlight.

1.3 Safe disposal

In order to preserve and protect the environment to prevent environmental pollution and to improve the recycling of raw materials, please note the disposal instructions in points **1.3.1** and **1.3.2**.

1.3.1 Packaging

The product packaging should be stored in case the product needs to be transported again. If you need to return the product to us for repairs or in the event of warranty claims, kindly use, if possible, the original carton box so that the product is optimally packaged. Recycle the packaging materials according to their type.



Do not leave packaging materials unattended, as they are a possible source of danger.

1.3.2 Product

Separate the raw materials used in the product for recycling according to their classification (see material information under **Point 2.1**). The electrical components and the drive system battery must not be disposed of with household waste. These must be returned to the designated public collection points or to your specialist dealer (see **Point 9.5**).

1. Preparation.

1.4 Where to store the Instructions for use

Please store these Instructions for use carefully and ensure that these Instructions for use remain with the product in case of re-use. Should you lose the instructions, you can always download an updated version at www.schuchmann.de.

2. Product description.

2.1 General information

All base frames are made of aluminium, which is non-corroding and powder-coated. All other materials used are protected against corrosion through the use of stainless steel, aluminium or plastic. All important parts, such as the saddle, handlebars or also the pedals, can be individually adapted to the individual requirements. Thanks to special accessories the user can be positioned e.g. at the torso or in the calf area / foot area. The bicycles generally have a brake hub / backpedal hub brake on the rear wheel (except for those with a rigid sprocket) and an air pressure-independent parking brake on the front wheel.

2.2 Symbol descriptions

Symbol	Description
	Follow the instructions for use (in accordance with ISO 7010)
	Read the instructions for use (in accordance with ISO 15223-1)
	This is a medical device
	The product complies with the requirements of the MDR
	Manufacturer of the medical device



2. Product description.

Symbol	Description
	Date of manufacture of the medical device
	Warning: risk of getting fingers caught

2.3 Handling and transport

The **momo therapy bicycle**. is not intended for carrying since it is equipped with tyres. Should you have to carry the equipment due to obstacles, ensure that all moving parts are tightened. Subsequently, stand in twos on either side of the therapy bicycle, hold the frame from the left and right and carry it to the desired location. In order to transport the therapy bicycle, reduce all adjustments to their most compact size (saddle height, handlebar height, remove accessories etc.).

2.4 Application areas, use according to the intended purpose

The **momo therapy bicycle**. is a class I medical device and was designed for children, adolescents and adults for outdoor use.

The bicycle enables users with disabilities to move around independently. They can use the bicycle to cover relevant distances independently and achieve an appropriate speed. The use of the bicycle ensures mobility outdoors and participation in community life (integration into a peer group). Any other use or use beyond this purpose shall be considered not in accordance with the intended purpose.

The motor skills in relation to

- movement coordination (alternating leg movements, eye-hand coordination, isolated arm and leg movements);
- targeted development of muscle strength and endurance;
- trunk stability and head control;
- the balance reaction is particularly strongly promoted when using the therapy bicycle;
- joint mobility (range of motion, ROM), especially of the lower extremities;

and the patient's cardiorespiratory function are strengthened. These effects support physiotherapy treatment.

2. Product description.



2.4.1 Indications

The **momo therapy bicycle**. is suitable for children, adolescents and adults with acquired or congenital disabilities due to the following diagnoses:

- Diseases of the central nervous system (e.g. cerebral palsy in spastic, dyskinetic or ataxic form, GMFCS II-IV)
- Diseases of the peripheral nervous system (e.g. such as spina bifida or paraplegia)
- neuro-degenerative diseases (e.g. muscular dystrophies or atrophies caused by metabolic defects)
- genetic diseases (e.g. trisomy 21, Rett syndrome, Kabuki syndrome, Cornelia de Lange syndrome, ...)
- Orthopaedic conditions and resulting deformities (e.g. rheumatism or consequences of trauma to the bony apparatus)
- Mental illnesses that influence movement behaviour (e.g. from the autistic spectrum)

Relevant symptoms (also with other diagnoses) are

- restricted postural control,
- restrictions in the range of movement,
- deformities of the bony apparatus (e.g. spine and/or pelvis),
- restrictions of the cardiorespiratory system,
- impaired balance and equilibrium,
- limitations in strength and endurance,
- uncontrollable movement.

The group of people described cannot use standard bicycles or vehicles, even with standard training wheels, due to the movement disorders.

2.4.2 Contraindications

The **momo therapy bicycle**. should not be used if:

- there is a risk of harm to oneself or others arising from the use of a bicycle;
- pain is caused or exacerbated by use; or
- there are other medically diagnosed contraindications to riding a bicycle.



1. Preparation.

2.5 Use not in accordance with the intended purpose / warning guidelines

- Users with a visual or reading impairment must have the instructions for use read aloud to them in order to be able to handle the therapy aid safely.
- Replace bent handlebars and handlebar stems immediately! Breakage may occur in the event of continued use or repairs.
- Correct usage of the product requires precise and careful training of the accompanying person.
- The vehicle may only be used on stable and flat ground.
- Please observe the "Technical data" in these instructions for use for the maximum permitted patient weight.
- Always wear light-coloured and distinctive clothing!
- Always be ready to brake, in particular in steep terrain and sections which are not easy to assess!
- Show consideration for other people who are walking or hiking!
- Do not hang loads on the handlebars; this compromises the travel safety.
- Test the fastenings for the pedal cranks and pedals regularly!
- For your own safety, we recommend that you always use your vehicle with a helmet. Please ensure in particular that the helmet is of good quality. It should accord at least with the legal regulations or recommendations (Standard: EN 1078 or ANSI)
- Check that the brakes, lights and bell function properly prior to each journey!
- Check all screw connections and, if necessary, retighten them using the specified torque values.
- Ensure that your vehicle accords with the legal requirements!
- Only ride if the bicycle is in proper condition!
- Do not use headphones so that you can remain aware of warning sounds.
- If you mount a push rod, it must only be used for guiding the therapy bicycle. The push rod is NOT suited for relocating the therapy bicycle or for lifting or tilting!
- In wet conditions, the braking distance of your bicycle will become longer. Therefore ensure to always set your speed in such a manner that you can stop at any time.
- The therapy bicycle is not suitable for carrying a second person. The consequences arising from such use, which is not in accordance with the intended purpose, shall not fall within the scope of responsibility of the manufacturer.
- The bicycle basket may only bear loads of up to 20 kg.
- When adjusting the therapy bicycle there is the risk of jamming or crushing extremities.

2. Product description.

2.5 Equipment for basic model

- Aluminium frame with extra-low access point
- Rim brake with separate parking brake
- Angle adjustable handlebar stem
- Handlebar damper for stabilisation when moving straight on
- Drum brake in front wheel
- Stabiliser frame with dynamically-working stabilisers and adjustable spring strength
- Luggage carrier

2.6 Product overview

The Fig. below is intended to show you the designation of the most important components as well as the terms which you will find in these Instructions for use.

**Dynamic back pelotte pad
incl. chest strap**

**Dynamic brake pelotte pad
incl. chest strap**

Saddle

Luggage carrier

**Stabiliser
frame**

Stabiliser

Pedal

Handlebars

Bell

Locking brake

Drum brake

**Aluminium frame with
extra low access**



2. Product description.

2.7 Overview of equipment / accessories

Saddle					
Art. No.	Saddle		Width	Length	
37 01 001		Standard saddle Size 1	15 cm	21 cm	
37 02 001		Standard saddle Size 2	15 cm	24 cm	
37 03 001		Standard saddle Size 3	18 cm	26 cm	
Art. No.	Saddle	Rear width	Front width	Length	
37 01 024		Gel saddle Size 1	19 cm	4 cm	24 cm
37 02 024		Gel saddle Size 2	24 cm	7 cm	27 cm
Art. No.	Saddle	Rear width	Width in centre	Front width	Length
37 00 010		Unicycle saddle – Banana-shaped (Step length increases by 2 cm)	11 cm	6 cm	8 cm
25 cm					
Art. No.	Saddle	Rear width	Front width	Rear length	Length total
37 00 023		Moped saddle (Inside leg length increases by 2 cm)	26 cm	9.5 cm	12 cm
25 cm					

Saddle posts		
Art. No.	Saddle post	
37 01 004		Standard saddle post Size 1 for 12"
37 02 004		Standard saddle post Size 2 for 16"
37 03 004		Standard saddle post Size 3 for 20" – 26"
Art. No.	T-saddle post	
37 01 005		T-saddle post Size 1 for 12"
37 02 005		T-saddle post Size 1 for 12"
37 03 005		T-saddle post Size 3 for 24" + 26"

Holding bracket			
Art. No.	Holding bracket with mount		Max. height*
37 01 007		Holder bracket Size 1	20 cm
37 02 007		Holder bracket Size 2	30 cm
37 03 007		Holder bracket Size 3	37 cm
37 04 007		Holder bracket Size 4	53 cm
37 09 007		Holder bracket, customer-made	___ cm
37 02 055		Universal bracket – for harnesses when not using pelotte pads (width = 27.5 cm)	

* Max. height: measured on a standard saddle up to the top edge of the back pelotte pad

2. Product description.

Headrest				
Art. No.		Headrest	Width	Height
3701029		Headrest Size 1	20 cm	15 cm
3702029		Headrest Size 2	23 cm	18 cm

Handlebars				
Art. No.		Classic handlebars – black	Width	
3701011		Classic handlebars for 12"	47 cm	
3702011		Classic handlebars for 16"	49 cm	
3703011		Classic handlebars for 20"	52 cm	
3704011		Classic handlebars for 24"-26"	58 cm	
Art. No.		Touring handlebars	Width	Depth
3701012		Touring handlebars Size 1	55 cm	17 cm
3702012		Touring handlebars Size 2	58 cm	17 cm
Art. No.		Round handlebars	Width	Depth
3701013		Round handlebars Size 1	40 cm	17 cm
3702013		Round handlebars Size 2	43 cm	21 cm
3703013		Round handlebars Size 3	48 cm	25 cm
Art. No.		Multifunctional handlebars – suitable for 20" – 26"	Width	Depth
3702014		Multifunctional handlebars	61.5 cm	16.5 cm
Art. No.		Handlebar lock limiter – adjustable up to direction determination		
3701006		Handlebar lock limiter Size 1 for 12"		
3703006		Handlebar lock limiter Size 2 for 16" – 26"		
Art. No.		Handlebar extension	Length	
3701022		Handlebar extension Size 1 for 12"	10 cm	
3702022		Handlebar extension Size 2 for 16" – 26"	10 cm	

Foot pans									
Art. No.		Foot pans with leg guidance	Min. width at front	Max. Front width	Min. width at rear	Max. Rear width	Length	Min. height of leg guidance	Max. height Leg guidance
3701018		Size 1	8.7 cm	10.4 cm	5.7 cm	7.4 cm	17.4 cm	15 cm	18.5 cm
3702018		Size 2	9.5 cm	12 cm	6.7 cm	9.2 cm	20.1 cm	18 cm	22 cm
3703018		Size 3	11.5 cm	14 cm	8.1 cm	10.6 cm	23.8 cm	21 cm	26 cm
3704018		Size 4	11.5 cm	14 cm	8.1 cm	10.6 cm	23.8 cm	28 cm	36 cm
Art. No.		Foot pans			Min. width at front	Max. width at front	Min. width at rear	Max. width at rear	Length
3701017		Foot pans Size 1			8.7 cm	10.4 cm	5.7 cm	7.4 cm	17.4 cm
3702017		Foot pans Size 2			9.5 cm	12 cm	6.7 cm	9.2 cm	20.1 cm
3703017		Foot pans Size 3			11.5 cm	14 cm	8.1 cm	10.6 cm	23.8 cm



2. Product description.

Foot pans									
Art. No.		Foot pans with dynamic leg guidance	Min. width at front	Max. width at front	Min. width at rear	Max. width at rear	Length	Min. height of leg guidance	Max. height of leg guidance
37 01 035		Size 1	8.7 cm	10.4 cm	5.7 cm	7.4 cm	17.4 cm	15 cm	18.5 cm
37 02 035		Size 2	9.5 cm	12 cm	6.7 cm	9.2 cm	20.1 cm	18 cm	22 cm
37 03 035		Size 3	12 cm	15 cm	8.8 cm	11.8 cm	24 cm	20.5 cm	25.5 cm

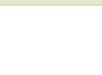
Pedals			
Art. No.		Pedals	Depth
37 00 013		Foot positioning pedals - with bike toe clips and compensation weights	13 cm
Art. No.		Pedals	Width
37 00 014		Exercise bike pedals	12 cm

Back pelotte pads			
Art. No.		Dynamic back pelotte pads – padded with strap and mount	Width
37 01 008		Dynamic back pelotte pad Size 1	20 – 30 cm
37 02 008		Dynamic back pelotte pad Size 2	25 – 35 cm
37 03 008		Dynamic back pelotte pad Size 3	30 – 40 cm
Art. No.		Width adjustable back pelotte pad – padded, including mount	Width
37 01 025		Width adjustable back pelotte pad Size 1	20 – 28 cm
37 02 025		Width adjustable back pelotte pad Size 2	25 – 33 cm
37 03 025		Width adjustable back pelotte pad Size 3	30 – 36 cm

Pelvic supports			
Art. No.		Dynamic pelvic guidance pelotte pad – padded, with strap and mount	Width
3701009		Dynamic pelvic guidance pelotte pad Size 1	20 – 30 cm
3702009		Dynamic pelvic guidance pelotte pad Size 2	25 – 35 cm
3703009		Dynamic pelvic guidance pelotte pad Size 3	30 – 40 cm
Art. No.		Width adjustable back guidance pelotte pad – padded, including mount	Width
3701026		Width adjustable pelvic guidance pelotte pad Size 1	20 – 28 cm
3702026		Width adjustable pelvic guidance pelotte pad Size 2	25 – 33 cm
3703026		Width adjustable pelvic guidance pelotte pad Size 3	30 – 36 cm

2. Product description.

Positioning							
Art. No.		Hand positioning aid – for all handlebars				Front width	
3700054		Hand positioning aid size 0				8.5 cm	
3701054		Hand positioning aid size 1				10 cm	
3702054		Hand positioning aid size 2				12 cm	
3703054		Hand positioning aid size 3				14 cm	
Art. No.		Chest strap – for the width adjustable back pelotte pad				Width	Length
3701050		Chest strap Size 1				5 cm	18.5 cm
3702050		Chest strap Size 2				6.5 cm	25.5 cm
3703050		Chest strap Size 3				7 cm	30.5 cm
Art. No.		Positioning vest – for the width adjustable back pelotte pad		Inside width	Total width	Side height	Total height
3701051		Positioning vest size 1		8 cm	25 cm	10 cm	28 cm
3702051		Positioning vest size 2		9 cm	30 cm	12 cm	30 cm
3703051		Positioning vest size 3		12 cm	34 cm	16 cm	35 cm
Art. No.		Groin strap, T-shaped – for the width adjustable pelvic pelotte pad		Width Seat surface	Front width	Length Seat surface	Total length
3701052		Groin harness, T-shaped Size 1		24 cm	23 cm	15 cm	32 cm
3702052		Groin harness, T-shaped Size 2		26 cm	26 cm	17 cm	34 cm
3703052		Groin harness, T-shaped Size 3		28 cm	28 cm	19 cm	38 cm
Art. No.		4-point pelvic harness – for the width adjustable pelvic pelotte pad		Width Exterior parts	Width Centre section	Length Exterior parts	Length Centre section
3701053		4-point pelvic harness Size 1		7 cm	7 cm	12 cm	12 cm
3702053		4-point pelvic harness Size 2		9 cm	8.5 cm	13 cm	14 cm
3703053		4-point pelvic harness Size 3		11.5 cm	11 cm	15 cm	16 cm

Handlebars		
Art. No.	Push bar – height adjustable, removable and equipped with an integrated anti-rotation lock	
3801009		Push rod for 12"
3802009		Push rod for 16"
3803009		Push rod for 20 – 26"
Art. No.	Parking brake for accompanying persons – only usable in connection with push bar	
3700012		Parking brake for accompanying persons
Art. No.	Steering for accompanying person using steering linkage including handlebar lock limiter (can only be used in connection with push bar)	
3801010		Steering for accompanying person for 12"
3802010		Steering for accompanying person for 16"
3803010		Steering for accompanying person for 20"



2. Product description.

Light system		
Art. No.	Light system	
38 01 021		Retrofitting of a lights system for 16" + 20" with side dynamos and reflectors acc. German Road Traffic Act Regulations
38 02 021		Retrofitting of a lights system for 16" + 20" with hub dynamo and reflectors acc. StVZO (German Road Traffic Act Regulations)
38 05 021		Light system when using an electric drive for 16" + 20"
38 03 021		Lights system with hub dynamo for 24" + 26"

Basket		
Art. No.	Basket	
38 01 019		Basket for 12" + 16"
38 03 019		Basket for 20" + 24"
38 05 019		Basket for 26"

Handlebar brake		
Art. No.	Handlebar brake	for
37 01 028		Size 1
37 02 028		Size 2
37 01 031		Size 1
37 02 031		Size 2

Conversion kit		
Art. No.		for
38 01 026	Quick connection of the stabiliser frame for easy disassembly for transport	For 12"
38 02 026		for 16-26"
38 01 101	Stabiliser frame with dynamically-working stabilisers and adjustable spring strength	For 12"
38 02 101		For 16"
38 03 101		For 20"
38 04 101		For 24"
38 05 101		For 26"
38 00 025	Assembly at Schuchmann	

2. Product description.

DirectPower E-drive from Heinzmann

The **momo therapy bicycle**. can optionally be equipped with the DirectPower E-drive from Heinzmann. This allows us to offer you a wear-free and silent direct drive. The motor is designed to be brushless and without gears. This minimises maintenance and wear and eliminates motor noise. The recuperative system automatically recharges when driving downhill or braking. This means that the range can be increased by up to 15 %. The existing force of the user is measured by a force sensor integrated in the bottom bracket, and the assistance from the electric drive is adjusted.

You have selected one of the following e-drive configurations (with or without start-up assistance) for the **momo therapy bicycle**. Here you have chosen a **beginner version** or an **advanced version**. The difference here is the **start-up** and the **top speed** of the various modes **Eco, Tour, Sport, Turbo and Boost**, which can be selected via the display. Using an analysis cable, the chosen version can be changed by our field service team later on.

DirectPower E-drive from Heinzmann – without start-up assistance

for size	Revision	Start-up handling / top speed				
		Eco	Tour	Sport	Turbo	Boost
16"	Beginner (36 02 170)	gentle / 4 km/h	gentle / 4 km/h	medium / 4 km/h	medium / 5 km/h	strong / 6 km/h
	Advanced (36 02 171)	gentle / 6 km/h	gentle / 7 km/h	medium / 8 km/h	medium / 9 km/h	strong / 10 km/h
20"	Beginner (36 03 170)	gentle / 4 km/h	gentle / 4 km/h	medium / 4 km/h	medium / 5 km/h	strong / 6 km/h
	Advanced (36 03 171)	gentle / 6 km/h	gentle / 7 km/h	medium / 8 km/h	medium / 10 km/h	strong / 12 km/h
24"	Beginner (36 04 170)	gentle / 6 km/h	gentle / 7 km/h	medium / 8 km/h	medium / 10 km/h	strong / 12 km/h
	Advanced (36 04 171)	gentle / 10 km/h	gentle / 12,5 km/h	medium / 15 km/h	medium / 17,5 km/h	strong / 20 km/h
26"	Beginner (36 05 170)	gentle / 6 km/h	gentle / 7 km/h	medium / 8 km/h	medium / 10 km/h	strong / 12 km/h
	Advanced (36 05 171)	gentle / 10 km/h	gentle / 12,5 km/h	medium / 15 km/h	medium / 17,5 km/h	strong / 20 km/h

DirectPower E-drive from Heinzmann – with start-up assistance

The start-up assistance can be activated depending on the chosen version at the touch of a button (fig. 1) or using a twist grip (fig. 2).



for size	Revision	Start-up assistance	Start-up handling / top speed				
			Eco	Tour	Sport	Turbo	Boost
16"	Beginner with twist grip (36 02 172)	4 km/h	gentle / 4 km/h	gentle / 4 km/h	medium / 4 km/h	medium / 6 km/h	strong / 6 km/h
	Beginner with button (36 02 173)						
	Advanced with twist grip (36 02 174)	6 km/h	gentle / 6 km/h	gentle / 8 km/h	medium / 8 km/h	medium / 10 km/h	strong / 10 km/h
	Advanced with button (36 02 175)						
20"	Beginner with twist grip (36 03 172)	4 km/h	gentle / 4 km/h	gentle / 4 km/h	medium / 4 km/h	medium / 6 km/h	strong / 6 km/h
	Beginner with button (36 03 173)						



2. Product description.

20"	Advanced with twist grip (36 03 174)	6 km/h	gentle / 6 km/h	gentle / 8 km/h	medium / 8 km/h	medium / 12 km/h	strong / 12 km/h
	Advanced with button (36 03 175)						
24"	Beginner with twist grip (36 04 172)	6 km/h	gentle / 6 km/h	gentle / 8 km/h	medium / 8 km/h	medium / 12 km/h	strong / 12 km/h
	Beginner with button (36 04 173)						
	Advanced with twist grip (36 04 174)	6 km/h	gentle / 10 km/h	gentle / 15 km/h	medium / 15 km/h	medium / 20 km/h	strong / 20 km/h
	Advanced with button (36 04 175)						
26"	Beginner with twist grip (36 05 172)	6 km/h	gentle / 6 km/h	gentle / 8 km/h	medium / 8 km/h	medium / 12 km/h	strong / 12 km/h
	Beginner with button (36 05 173)						
	Advanced with twist grip (36 05 174)	6 km/h	gentle / 10 km/h	gentle / 15 km/h	medium / 15 km/h	medium / 20 km/h	strong / 20 km/h
	Advanced with button (36 05 175)						

2.9 Drive possibilities

The **momo therapy bicycle**. can be equipped with the following drives:

Rigid sprocket

During active pedaling, the rigid sprocket supports the user in overcoming the "dead"/apex point of the crank. A passive user is assisted in pedaling constantly; in addition it permits travel forwards or backwards.

Freewheel brake hub (with backpedal brake)

The freewheel brake hub allows the user to stop and start pedaling as they wish. They can brake by pedaling backwards.

Extra-light transmission

An extra-light transmission can be selected for all the above-mentioned types of drive. Here a larger pinion on the rear axle permits improved force transmission and thus makes it easier for the user to start pedaling.

3 or 7-gear freewheel brake hub (with backpedal brake)

Using the 3 or 7-gear freewheel brake hub, the user can stop and start pedaling at will. They can brake by pedaling backwards. The user-friendly 3 or 7-gear hub gear system permits switching of gears when the bicycle is at a standstill. Switching takes place using the twist grip shifter on the handlebars.

3 or 7-gear freewheel brake hub with reverse option

Using the 3 or 7-gear freewheel brake hub, the user can stop and start pedaling at will. In addition, they can ride backwards. The user-friendly

2. Product description.

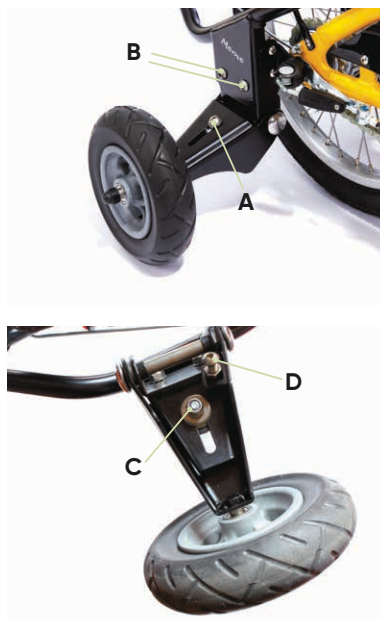
3 or 7-gear hub gear system permits switching of gears when the bicycle is at a standstill. Switching takes place using the twist grip shifter on the handlebars.

7-gear freewheel brake with wheel brake (without backpedal brake)

In the 7-gear freewheel hub with wheel brake forward, the movement can be interrupted as desired and be converted in free backwards pedaling in further forward drive. The user-friendly 7-gear hub gear system is suitable for any terrain and also permits switching of gears when the bicycle is at a standstill. Switching takes place using the twist grip shifter on the handlebars.

2.10 Adjusting the stabilisers

The stabilisers are equipped with spring elements that can be adjusted from soft to hard. To do this, loosen the screw (A) and move the spring element in the slot. Moving towards the stabiliser increases the spring hardness. By loosening the two screws (B), the stabilisers can be adjusted so that they are off the floor. Tighten the screws again after all adjustments. In addition, spring travel can be limited by means of an adjustable end stop. To this end, loosen the counter nut (C) below the support. Spring travel can now be adjusted by screwing in or out the screw (D), re-tighten the counter nut afterwards.



2.11 The initial riding attempts

Please remember that, prior to setting off on your own, you must first practice with an accompanying person in order to learn how to deal with riding around curves on the therapy bicycle, as this is where the risk of accidents is greatest. Always ride around curves as slowly as possible. Please also keep in mind that the rear is the widest point of the therapy bicycle. Therefore practise with corresponding obstacles in order to better estimate the width of the therapy bicycle.



3. Settings.

Settings and adjustments to the product or accessories may only be made by people who have been given the necessary instructions by a medical product advisor. Please ensure that none of the user's extremities are in the respective area when making adjustments of any kind to minimise the risk of injury. All adjustments can be made with standard tools (e.g. Allen key, screwdriver or spanner).

3.1 Presettings

The **momo therapy bicycle**. is delivered completely assembled. Prior to initial use, however, the following pre-settings must be made.

3.1.1 Handlebar adjustment

You can find our scope of delivery for handlebars on page 7 of these Instructions for use.

Height of handlebars

To adjust the height of the handlebars, remove the protective cap from the hexagon socket (A), loosen the hexagon socket (A) and adjust the stem (B) to the required height. By tapping the head of the hexagon socket (E) lightly with a hammer, the stem in the fork steerer will loosen. Then re-tighten the hexagon socket.

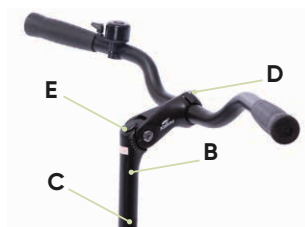


Ensure that the marking for the minimum insertion depth (C) remains on the stem in the fork steerer and therefore cannot be seen.

Handlebar adjustment

To adjust the handlebar position, loosen the clamping screws (D), bring the handlebars into the required position and then firmly re-tighten the clamping screws (D).

To change the tilt angle on the stem, please loosen the clamping screw (F). The steerer factory setting is 20°. In this way you can change the distance between the saddle and the handlebars, and adjust the required handle height. Then firmly re-tighten the screws again.



After each adjustment, please retighten all screw connections!



After adjustment of the handlebars, there must still be no tension placed on the brake cables. If necessary, extend the cables!

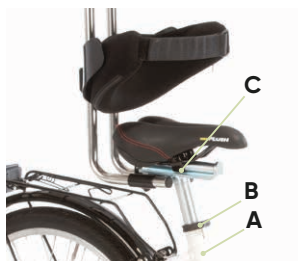
3. Settings.

3.1.2 Saddle adjustment

You can find our selection of saddle forms on page 9 of these Instructions for use.

Saddle height

The height of the saddle can be adjusted on the frame saddle tube (A) by pulling the saddle post in or out. In order to adjust the height, please loosen the clamp (B) and bring the saddle into the required height. Align the saddle and tighten the clamp (B) so tightly that the saddle support no longer twists. The saddle height is to be re-set based on the inseam length. Here any contractures of the knees must be taken into consideration. The saddle height should be inspected when the user is sitting on the saddle. The leg extension should not total 0°. In the upper position of the pedal, the knee flexion should not be more than 90°. Should it not be possible to achieved this setting through the saddle height, it is possible to undertake further settings through crank shortening (see point 4.9 – 4.11).



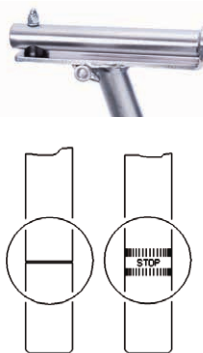
Adjusting the saddle horizontally

Every saddle (except for the unicycle saddle) can be minimally adjusted horizontally. To do this, loosen the nuts (D) with a size 13 wrench and push the calliper block (C) forwards or backwards on the seat stays.



Adjusting the saddle with t-saddle post horizontally

In order to check the horizontal saddle position, turn the pedal crank horizontally forwards and put the foot (while the rider is sitting on the saddle) onto the pedal. Once the lower leg is vertical, the saddle position is correct. You can also loosen the two nuts (D) under the saddle using a size 13 wrench, push the saddle to the rear or forwards and re-tighten the nuts.



During adjustment, the saddle post may not be pulled out over the respective marking, as in this case sufficient clamping cannot be guaranteed. The markings are in part designed differently.



After each adjustment, please retighten all screw connections!



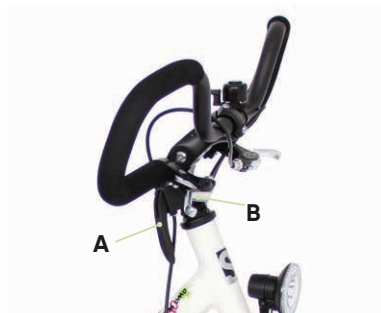
3. Settings.

3.2 Brakes

For the **momo therapy bicycle**, there are different brakes available, depending on the individual requirements of the user.

3.2.1 Parking brake

The parking brake supports the user when getting on and off and also secures the therapy bicycle against unintentional rolling away. To activate the parking brake, press the lever (A) on the handlebar stem (B) downwards. To release the parking brake, push the lever up again.



Always ensure that the brake or the brake blocks function correctly and have been adjusted (see below).

Adjustment of the parking brake or brake blocks

Ensure that the braking function immediately takes effect on actuation of the parking brake lever, taking the necessary backlash into account.

Due to "settling" of the Bowden cables and the natural wear on the brake blocks, it is necessary to reset the brake or replace the brake blocks after a certain amount of time.

Each gap between the rim and the brake lining should not be larger than 1.5 mm. To do this, loosen the clamping screw (C), press the brake blocks together by hand, pull the Bowden cable taut and then re-tighten the clamping screw. If the brake blocks are not accurately aligned with the rim edge (D), you must readjust them accordingly. In order to change the alignment of the brake blocks, loosen the screws (E). Leave this work to your specialist dealer in case of any uncertainty.



After each adjustment of the cantilever (V) brake, carry out a brake test. The brake blocks may only be replaced by ones in an identical design. Observe the manufacture name or marking and the type designation. New brake blocks do not achieve the required braking effect until they have been used multiple times.

3. Settings.

3.2.2 Round handlebars with brake lever ring

Braking with round handlebars with brake lever ring is done by gently pushing down the ring (A) and is therefore suitable for users with limited strength in arms and hands who require the round handlebars as support point at the same time. The brake lever ring is coupled with the rim brake.



3.2.3 Round handlebars with brake function

The braking function is triggered by simply pressing the round handlebars (B) downwards. The round handlebars with braking function is suitable for users with limited strength in arms and hands.



3.2.4 Drum brake in front wheel

The brake lever for actuation of the drum brake is located on the right-hand side of the handlebars. In drive mode, always use only the front wheel drum brake in connection with the backpedal brake.



The braking effect can be reduced if the brakes are used frequently. Therefore ensure to regularly re-adjust the Bowden cable of the brake when you notice a loss in braking power (see Point 3.2.1)



3.2.5 Backpedal brake

The backpedal brake is actuated by pedaling backwards. The drive options of the freewheel brake hub and the 3 or 7-gear freewheel brake hub feature a backpedal brake.



The backpedal brake is only functional when the chain sits correctly! If the chain jumps off, it is not possible to brake using the backpedal brake!



The rear wheel may block in case of strong braking procedures. Risk of crashes!



During long downhill runs, it is essential that you use the front and rear brakes in order to avoid overheating of the rear hub brake. This may lead to brake malfunctions!



3. Settings.

3.3 Tyres and hoses

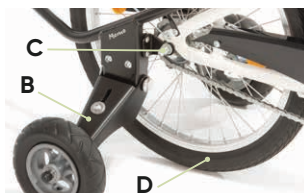
The tyres of the therapy bicycle must always have enough air pressure, as otherwise the tyres could puncture and the rims get damaged or the driving behaviour is negatively affected. The optimal tyre pressure is marked on the tyre casing (A). If the tyre tread only depresses slightly on being pressed forcefully with the thumbs, the tyre pressure is correct. For exact values, use a pressure gauge!



Check all tyres regularly and replace them immediately in case of damage or wear!

3.4 Chain tension

Due to the elongation of the chain caused by use, the chain tension must be checked regularly. Check the chain tension by testing whether the chain of the therapy bicycle can be pushed max. 10 – 15 mm up and down. To tension the chain, remove the stabiliser frame (B), loosen the axle nuts (C) using a 15mm open-end wrench and pull the rear wheel (D) towards the back uniformly on both sides. If the therapy bicycle is equipped with a gear hub (3 or 7 gears and idle brake hub), you must also disassemble the brake anchor and the click box of the gears. Leave this work to your specialist dealer in case of any uncertainty!



After each adjustment, please retighten all screw connections!



An incorrectly-tensioned chain can lead to increased wear!

3.5 Light system / dynamo

Side dynamo: The lighting system is activated by pressing the switch (E) of the side dynamo. The dynamo roller then lies automatically against the tyre flank.



Hub dynamo: The hub dynamo is automatically integrated into the wheel and is switched on via the switch (F) on the headlight.



4. Accessories.

4.1 Dynamic back and pelvic guide pelotte pads

All back and pelvic guide pelotte pads can only be used in connection with a holding bracket (see **Point 4.7**). For depth adjustment of the pelotte pad holding bracket, please loosen the screws (**A**) on the right and left-hand sides of the support under the saddle, and bring the holding bracket into the required position.

The angular adjustment of the holding bracket takes place after loosening the screw (**B**) on the support. The pelotte pads are adjusted in height after loosening the screw (**C**) on the respective support.



Use only original accessories as otherwise the warranty will become void.

4.1.1 Width adjustable back and pelvic guide pelotte pads

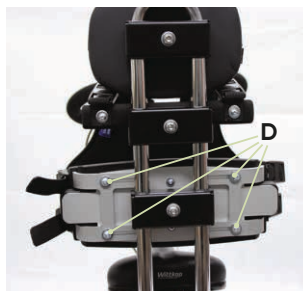
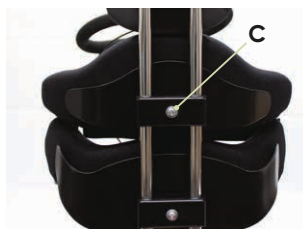
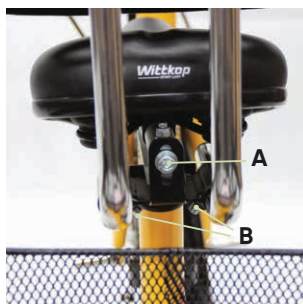
To adjust the height, handle and depth of the back and pelvic guide pelotte pads, see **Point 4.1**. The back and pelvic pelotte pads can be adjusted in width. To do this, loosen the screws (**D**) on the rear of the back or pelvic guide pelotte pads and bring them into the required position.

4.2 Headrest

The headrest can only be used in connection with a holding bracket (see **Point 4.7**) and is adjustable in height. In order to adjust the height, loosen the screw (**E**) and bring the headrest into the required position.



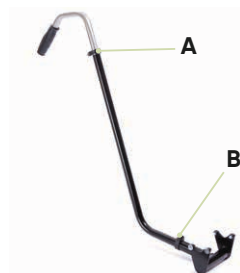
After each adjustment, please retighten all screw connections!



4. Accessories.

4.3 Push bar

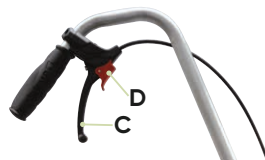
The push bar is height adjustable and equipped with an integrated antirotation lock. In addition, it can be dismantled. In order to adjust the height, please loosen the clamp (A) and bring the push handle to the required height. In order to remove the entire push bar, please loosen the clamp (B). Please ensure on insertion that the push bar is inserted up to its limit into the push handle holder, and cannot be rotated.



Use the push bar only to guide the therapy bicycle! The push bar is NOT suited for repositioning the therapy bicycle or lifting or tilting!

4.4 Parking brake for accompanying escorts

The parking brake for accompanying persons (can only be used in connection with the push rod) secures the therapy bicycle against unintentional rolling away. The function of the lever is similar to a normal brake lever. For this reason, the parking brake can also be used as a normal brake. If however the brake should be locked in parking position, the claw (D) must be pressed into the ratchet with the brake lever (C) pulled. Loosen the locking device by pulling the brake lever (C).



Always ensure that the brake and the brake pads work and that they have been adjusted (see Point 3.2.1).

4.5 Steering for accompanying persons

Steering for accompanying person (by means of steering linkage, incl. handlebar lock limiter) allows the accompanying person to help determine the direction of travel of the therapy bicycle by shifting the front wheel without interrupting the user's pedaling movements.

4. Accessories.

4.6 Handlebar lock limiter

The handlebar lock limiter can be adjusted to determine the direction of travel. In order to adjust the handlebar lock limiter, please loosen all grub screws (A) and bring the limiter (B) into the required position. You can determine the direction by moving both limiters (B) towards the handlebar stop (C) and tightening them.



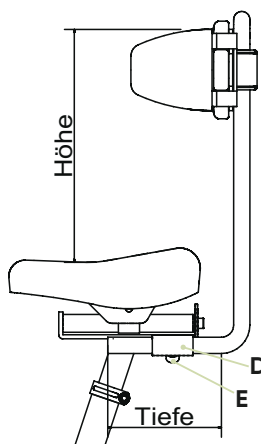
If possible please leave the settings on the handlebar lock limiter as set at the factory!

4.7 Holding bracket with mount

The holding bracket with mount permits the mounting of head, torso or pelvic supports that provide extra stability to the therapy cyclists. Included in the scope of delivery is the black bracket adapter, which is mounted onto the T-saddle post. Then the holding bracket is pushed into the holding socket (D) and can be adjusted in depth. To do this, simply adjust the required position and then tighten the screws (E).



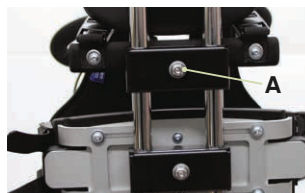
The use of the holding bracket is exclusively possible in combination with the T-saddle post!



4. Accessories.

4.8 Universal adapter

The universal adapter is mounted to the holding bracket and is used to mount the belt sets available for the therapy bicycle. The universal adapter is adjustable in height. To do this, simply loosen the screw (A) at the rear on the adapter and bring the universal adapter into the required position.



4.9 Crank shortener (continuously adjustable)

The adjustable crank shorteners are to be mounted onto the cranks with clamps. Please note here that the crank shortener marked "R" is to be mounted on the right-hand side and the crank shortener marked "L" is to be mounted on the left-hand side. The adjustment of the crank shortener is to be undertaken so that the amplitude of the pedal depicts the flexibility of the knee joint. In the lower pedal position, the maximum extension to be achieved, and in the upper position, the maximum flexion of the knee is to be achieved. This adjustment is to be undertaken in interaction with the saddle height. In order to adjust the continuously adjustable cable shortener, loosen the screws (B) and bring them into the required position.



4.10 Crank shortener

The crank shortener must be mounted onto the cranks using the screw included in delivery and the clamp, and shortens the crank by 2.5 or 5 cm. Please note here that the crank shortener marked "R" is to be mounted on the right-hand side and the crank shortener marked "L" is to be mounted on the left-hand side. The pedal is to be mounted in the required position in the crank shortener.

The position of the pedals must be conducted so that the amplitude of the pedal depicts the flexibility of the knee joint. In the lower pedal position, the maximum extension to be achieved, and in the upper position, the maximum flexion of the knee is to be achieved. This adjustment is to be undertaken in interaction with the saddle height. In order to adjust the crank shortener, loosen the pedals with a 15mm open-end wrench and place it into the opening (C).



4. Accessories.

4.11 Special crank for knee contracture

The special crank for knee contractures is suitable for 20" - 26" bicycles, and can either be mounted on the left or right-hand side.



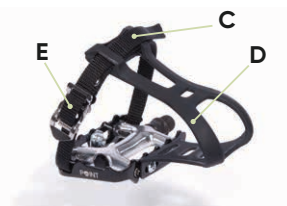
4.12 Exercise bike pedals

The exercise bike pedals are characterised by their integrated balancing weight, whereby the tread surface automatically balances itself horizontally. This permits the rider to climb on independently. The strap (A) is adjustable in length, and at the same time provides easy side guidance. To adjust the length of the strap (A) pull on the lower end in order to loosen the strap (A) from the plug (B). Now adjust the strap (A) to the required length.



4.13 Foot positioning pedals

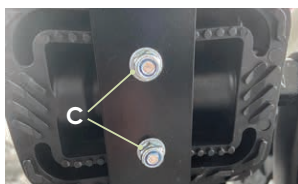
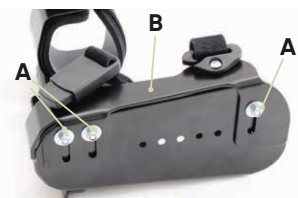
The foot positioning pedals are characterised through the integrated balancing weight, whereby the treads are automatically horizontally balanced. This permits the rider to step onto them independently. The strap (C) is adjustable in length, and at the same time provides easy side guidance. The cage mounted at the front of the pedals (D) prevents the toes from slipping through at the front. In order to adjust the strap (C) in length, pull the strap (C) back out of the strap guide (E). Now the strap (C) can be shortened through pulling and extended through pressing under the lock. To fix the adjustment, guide the strap (C) back through the strap guide (E).



4. Accessories.

4.14 Foot pans

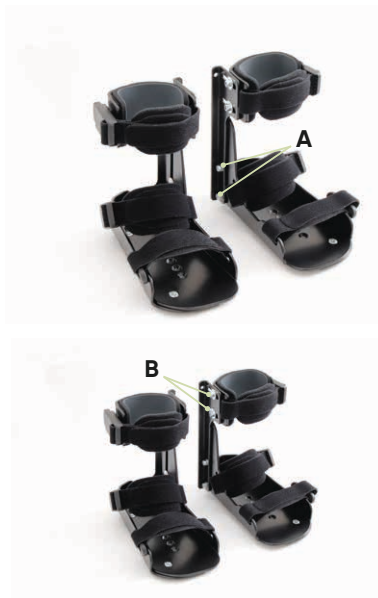
The foot pans provides side guidance and thus prevents internal or external rotations of the foot. To guarantee this function, the foot pan is adjustable in width, which can be conducted by loosening the three screws (A) and shifting the side part (B) in the slotted hole. The foot pans are mounted centrally on the pedals in the factory. In order to shift the pressure point under the foot, it must be moved in three positions. To this end, remove the screws with nuts (C) below the counterplate and move it into the desired position. Subsequently put the counterplate back and tighten again the screws with nuts (C). The rotation can be adjusted by loosening the screws with nuts (C) and turning the foot pans on the pedal. In order to secure the user in the foot pan, the foot pans are equipped with straps. These can be closed using the magnetic locks. If you guide the strap end (D) in direction of the closure, it will engage automatically. Press the button (E) to open the straps. For the length adjustment, the hook and loop closure of the strap (F) can be opened on both sides and adjusted in length. To close the strap in the forefoot area, guide it through the opening (G) and close the strap with hook and loop closure.



4. Accessories.

4.15 Foot pans with leg guidance

See **Point 4.14** for the function and settings of foot pans. The leg guidance also stabilises the foot joint and reduces internal rotation of the leg. The leg guidance can be adjusted by loosening the nuts (**A**) and shifting them in the slotted hole. The height adjustment should be selected so that the calf clamp lies against the vertex of the calf. The depth of the calf clamp can be adjusted by loosening the nuts (**B**) on the inside of the leg guidance.



4.16 Foot pans with dynamic leg guidance

For the function and adjustment of the foot pans with leg guidance, see **Point 4.14**. For the foot pans with dynamic leg guidance, the adjustment options are installed only on the rear foot part and not on the side like for the foot pans with leg guidance.

The dynamic leg guidance also permits defined rotation of the leg and thus prevents excessive abduction, in particular of short legs. At the same time, the stabilisation of the foot joint is retained. To adjust the degree of movement of the leg guidance, loosen the cover (**C**) and the nut below it, and screw the elastomer in or out accordingly. Check the leeway of the leg guidance.



4. Accessories.

4.17 Chest strap

The chest strap is attached to the width adjustable back pelotte pad, and, if required, ensures secure positioning of the user. The strap is mounted with the aid of the plug lock to the back pelotte pad and threaded through the strap guidance on the click buckle. Then the click buckle is pressed down to fix.



4.18 Positioning vest

The positioning vest is mounted in the lower area of the width adjustable back pelotte pad. Screw the strap ends of the positioning vest onto the universal adapter and tighten the screws (A). The strap of the positioning vest is mounted onto the back pelotte pad with the aid of the plug lock, and threaded through the strap guidance on the click buckle. Then the click buckle is pressed down to fix.



4. Accessories.

4.19 Groin harness, T-shaped

The T-shaped groin harness is mounted onto the width adjustable pelvic pelotte pad. The strap is mounted onto the pelvic pelotte pad with the aid of the plug lock and threaded through the strap guidance on the click buckle. Then the click buckle is pressed down to fix.



4.20 4-point pelvic harness

The 4-point pelvic harness is mounted onto the width adjustable pelvic pelotte pad. The strap is mounted onto the pelvic pelotte pad with the aid of the plug lock and threaded through the strap guidance on the click buckle. Then the click buckle is pressed down to fix.



4.21 Hand positioning aid

The hand positioning aid provides additional security for the user by keeping their hands safely on the handlebars. To do this, the user simply inserts their hand into the hand positioning aid and closes the hook and eye fasteners.



5. Electric drives.

5.1 Components

5.1.1 Engine

The **momo therapy bicycle** is equipped with a brushless electric motor (A) as its power source. This provides both strong torque during continuous operation and considerable peak torque (e.g. when starting off). Mechanical losses are negligible, as the motor is designed without a gearbox.



5.1.2 Battery and charger

The battery (B) serves as the power source for the "DirectPower" drive system. Its high capacity ensures maximum performance and range. A suitable charger, including a cable (C), for charging the battery from the mains is included with the **momo therapy bicycle**.



5.1.3 Control housing and control system

The electronic control unit is, in a sense, the brain of the drive system. Its role is to analyse all signals and control the motor in accordance with the set parameters so that it delivers the required power. The plastic control housing (D) provides reliable protection for the control unit against water and moisture, as well as against impacts and similar stresses.

5.1.4 Display

The display (E), together with the control unit, forms the control centre of the drive system. Here you can, for example, select the level of assistance and adjust all other settings as required. It also provides all the necessary information regarding the system's operating status, the route and the range.

5.1.5 Torque sensor

The torque sensor (F) is integrated into the bottom bracket and is completely concealed within it. It transmits signals relating to pedalling torque, cadence and the direction of pedalling to the control unit. The torque sensor is completely maintenance-free and requires no adjustment whatsoever.

5. Electric drives.

5.2 Lithium-ion battery

The battery is particularly lightweight, yet has a very high charge capacity. Proper charging, along with protection against deep discharge and overheating, significantly helps to extend its service life. A charge controller designed to meet all these requirements is therefore already integrated into the charger supplied. This ensures optimal and safe operation. Consequently, only this charger should be used to charge the battery.



Risk of fire

Charging the battery incorrectly can cause it to overheat. This could result in a fire.

- Only the charger supplied with the unit must be used to charge the battery. The charger is intended for indoor use only.
- Before connecting the charger to the mains, you must check that the mains voltage matches the charger's rated voltage. The charger's rated voltage is indicated on the rating plate on the back of the unit.
- Only charge the battery in a dry, non-flammable environment and, if possible, do not leave it unattended.

Mechanical damage to the battery or charger can lead to malfunctions and short circuits. This could result in a fire!

- Any tampering with the battery casing or the charger is prohibited.
- Replace a damaged battery immediately and dispose of it properly.



Risk of electric shock

A charger with a damaged mains plug or power cable can cause an electric shock.

- Never connect damaged mains plugs or power cables to the mains.
- Replace damaged electrical assemblies and cables immediately.
- Under no circumstances should water or moisture be allowed to enter the charger. If water has entered the charger, disconnect it from the mains immediately and have it checked by your specialist dealer.
- If there is a sudden change in temperature from cold to warm, condensation may form on the charger. In such cases, wait until the charger has reached the temperature of the warm room before connecting it to the mains. Store the charger in the same place where it is used.
- The charger must only be used to charge the battery supplied. Any other use of the charger is not permitted.



5. Electric drives.

5.2.1 Charging

The battery should be charged before first use. To do this, use the charger (A) supplied with the bicycle, which has a built-in charge controller. Charging can be carried out either whilst the battery is still attached to the bicycle or separately, with the battery removed. Once the battery is fully charged, the charge controller automatically switches to trickle charging. The battery can therefore remain connected to the charger indefinitely. This has the advantage that the battery is always fully charged. The battery can be used with the drive at any time, even if charging has not been fully completed. However, the range achievable with a fully charged battery will not be reached in this case.



To ensure the correct polarity during charging, the socket and plug are designed to prevent reverse polarity, meaning they can only be connected in one way. This ensures the correct polarity. Never attempt to force the charging plug into the charging socket in a different orientation!

The following ambient temperatures must be maintained to ensure the battery functions correctly:

Operating mode	Operations	Shop	Store
Temperature range	-20°C to 60°C	0°C – 45°C	-10°C to 35°C



Notes

- Unlike other batteries, the lithium-ion battery has no ‘memory effect’ whatsoever. This means it does not need to be completely flat before recharging. In fact, it is actually beneficial for the battery’s lifespan if the charging cycles are short (i.e. if it is recharged immediately after each use).
- The ambient temperature during charging should not be below 0°C or above 45°C. Charging outside this temperature range reduces the available battery capacity and thus the range. When outdoor temperatures are below freezing, it is advisable to charge the battery in a heated room. However, direct sunlight and proximity to heating sources must be avoided.
- Before prolonged periods of inactivity, e.g. during the winter, the battery must be fully charged and then stored in a dry, frost-free place. Before putting the device back into use, fully recharge the battery first.
- The battery performs best at room temperature.
- During long journeys at high engine speeds, the battery may become very hot. An internal temperature monitoring system prevents charging

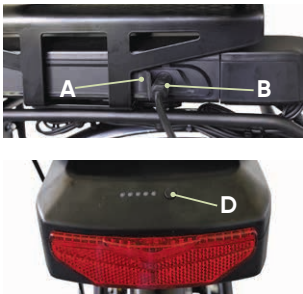
5. Electric drives.

if the temperature is too high. In such cases, the charger can remain connected. Charging will resume automatically once the battery has cooled down sufficiently. Cooling down can take up to an hour, for example after a long drive uphill.

Charging process

To charge the battery, please follow these steps:

- First, remove the dust cap (A) from the charging socket.
- Then connect the charger to the mains and plug the charging cable (B) into the battery's charging socket.
- The LEDs on the charge level indicator (C) start to flash.



Battery charge level during charging:

LED status	Battery status
All 5 LEDs flash in sequence and then go out together	The battery is charging; the number of LEDs that light up in succession indicates the amount of charge already accumulated
All LEDs are permanently off	Charging complete, battery is 100% charged

LED status	●●●●●	●●●●○	●●●○○	●●○○○	●○○○○
Battery status	≤ 100 %	< 80 %	< 60 %	< 40 %	< 20 %

You can check the battery charge level at any time, even when the battery is not charging. To do this, press the button (D) to the right of the indicator LEDs. A number of LEDs will light up to indicate the current charge level.

Charging time:

It takes approximately 8.5 hours to fully charge an empty battery.



5. Electric drives.

5.2.2 Insertion or removal

To insert the battery, slide it along the guide rail from the rear into the compartment beneath the basket until you hear it click into place.



Always remove the key before setting off.

To remove the battery, please turn the key (A) clockwise as far as it will go and hold it in this position. This will unlock the latch. You can now release the battery from the rear handle bar and pull it backwards out of the holder.



Danger due to unexpected engine activity

The motor may start up unexpectedly when the drive system is switched on after work has been carried out on the bicycle. This could result in injury.

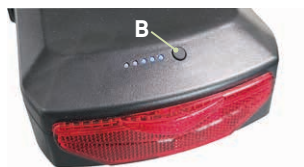
- Do not reinsert the battery until the system has been fully assembled.
- When putting the bicycle back into service after assembly or repair, position it so that the drive wheel can turn freely.

5.2.3 Service life

The manufacturer of the drive system, HEINZMANN, guarantees a minimum of 600 charge cycles for the battery. Proper handling and storage, as well as an initial charge, will extend its service life.

5.2.4 Sleep mode

After approximately 4 weeks of inactivity, or if button (B) is held down for more than 15 seconds, the battery will enter sleep mode. To reactivate the battery, it must be briefly connected to the charger.



5. Electric drives.

5.3 Display and operation

The display includes the following elements:

1	Speed
2	Temperature
3	Total mileage
4	Single journey (TRIP)
5	Support level
6	Speed display
7	Current engine power
8	Battery indicator
9	Light



The control unit is located on the handlebars and features five push-buttons: ON/OFF (A), '-' (B), '+' (C), Light (D) and Settings (E). All settings are adjusted using these push-buttons. There are no other adjustment options.

5.3.1 Switching on

Press the ON/OFF button (A) for at least 3 seconds until the display lights up. Then release the button. This longer press is a safety measure to prevent the system from being switched on accidentally. The system is now ready for use.



Please note

Do not apply any pressure to the pedals when switching on the system, to prevent the drive from starting up unintentionally! Please proceed as follows:

- First, get on the bicycle and put both feet on the ground.
- Then switch on the drive system.
- You can set off now.



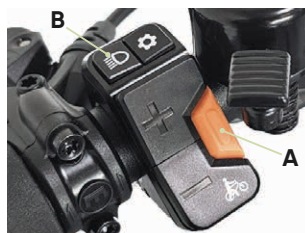
5. Electric drives.

5.3.2 Switching off

Press the ON/OFF button (A) for at least 3 seconds until the display goes blank. Then release the button. The drive system is now switched off.

For your information

The system switches itself off automatically if there has been no driving activity for more than approximately 10 minutes. Before using it again, you must switch the drive system back on using the ON/OFF button (A).



5.3.3 Light On/Off

Briefly press the light button (B) to switch the light on. A light icon will appear on the display to confirm this. Press the button again to switch the light off.

5.3.4 Start-up assistance

The start-off assist is an optional feature of the drive system. It allows you to set off with electric assistance without pedalling, up to a maximum speed of 6 km/h. In general, the start-off behaviour depends on the selected assistance level (see **section 5.3.5**).

By button

To activate the start-up assist, press and hold the “-” button (C). The motor assistance will engage after approximately one second. To deactivate the assistance, release the button (C).

By turning the handle

To activate the start-up assist, turn the twist grip (D) towards you. The motor assistance will engage immediately. To stop the assistance, release the twist grip (D).



5. Electric drives.

5.3.5 Setting the assistance levels

The drive system offers five different levels of assistance for driving: **Eco** (Level 1), **Tour** (Level 2), **Sport** (Level 3), **Turbo** (Level 4) and **Boost** (Level 5)

To select a higher support level, press the "+" button **(A)** once briefly.

To select a lower support level, briefly press the "-" button **(B)** once.

The assistance levels **(C)** are shown in the centre of the display, below the speedometer.

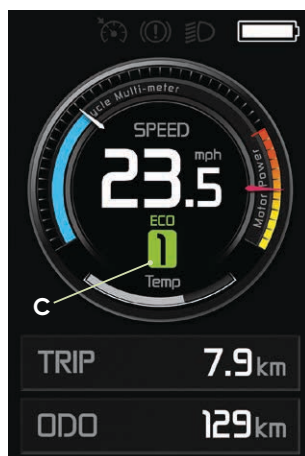


For your information

At assistance level '0', the drive system is active but does not provide any assistance.

For your information

When a brake lever **(D)** is squeezed, the electric motor's assistance is stopped. At the same time, regenerative braking is activated, thereby applying additional braking to the bicycle. As soon as both brake levers are released, regenerative braking is deactivated and the electric motor's assistance is reactivated.



5. Electric drives.

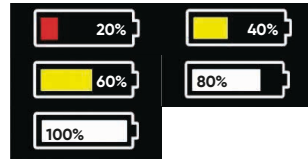
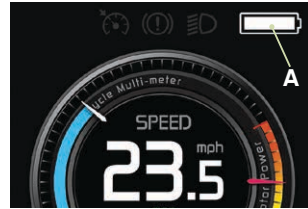
5.3.6 Charge level indicator

The battery charge level is constantly shown in the top right-hand corner of the display (A). Depending on the charge level, the display shows 5 battery bars: 20% – 40% – 60% – 80% – 100%.

When the battery is almost flat, the battery indicator flashes red. The battery then still has a limited reserve capacity. Once this is used up, the drive system switches off automatically. This is done to prevent the battery from being deeply discharged.

Once the system has shut down automatically in this way, the drive system will no longer provide assistance. Commands will also no longer be accepted when the buttons are pressed.

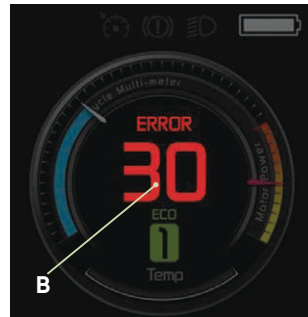
The drive system will only be operational again once the battery has been charged or a fully charged battery has been inserted.



5.3.7 Error code

If an error occurs in the e-bike's electronic control system, the display automatically shows an ERROR code (B).

The meanings of the error codes are described in **section 6.9**. You can only exit the error display once the fault has been rectified. Once an error has occurred, the e-bike will not continue to ride.



5. Electric drives.

5.3.8 Display readings during operation

During operation, the drive system displays various readings. The currently active reading is shown in the lower third of the display. Pressing the On/Off button (C) briefly changes the view.

- **TRIP – Distance travelled**

All kilometres travelled since the last reset are added together. To reset this counter, see **section 5.4.1**.

- **ODO – Total odometer reading**

All kilometres driven are added together.

- **WATT – Average power output**

The average power output since the last reset. This is displayed in energy per unit of time. To reset this reading, see **section 5.4.1**.

- **TIME – Elapsed time**

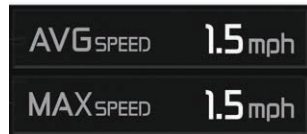
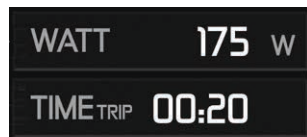
The time elapsed since the last reset is totalled. The display shows hours and minutes. To reset this counter, see **section 5.4.1**.

- **AVG Speed – Average speed for the current leg**

This display shows the average speed travelled since the last reset, in miles or kilometres per hour. To reset this counter, see **section 5.4.1**.

- **Max Speed – Stage maximum speed**

The display shows the maximum speed travelled since the last reset, in miles or kilometres per hour. To reset this counter, see **section 5.4.1**.



5. Electric drives.

5.4 General settings

When the device is switched on and not in use, briefly press the Settings button (A) to access the settings.

Use the "+" (B) or "-" (C) buttons to switch between the settings/options.



5.4.1 User settings

Reset stage distance (D)

Press the ON/OFF button briefly to open the menu item. Use the "+" or "-" buttons to select between "YES" and "NO". Press and hold the ON/OFF button to exit the menu item.

YES = TRIP is set to zero

NO = no reset

Backlight (E)

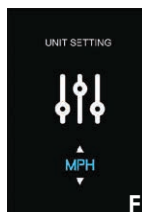
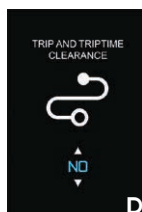
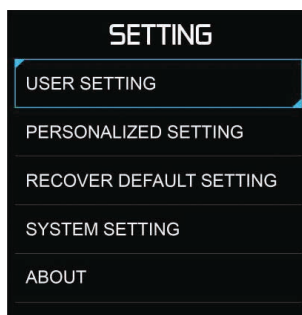
Press the ON/OFF button briefly to open the menu item. Use the "+" or "-" buttons to select a value between "1" and "3". Press and hold the ON/OFF button to exit the menu item.

Unit (F)

Press the ON/OFF button briefly to open the menu item. Use the "+" or "-" buttons to switch between "km/h" and "mph". Press and hold the ON/OFF button to exit the menu item.

Automatic switch-off time (G)

Press the ON/OFF button briefly to open the menu option. Use the "+" or "-" buttons to select a time between "5" and "30" minutes. Press and hold the ON/OFF button to exit the menu option.



5. Electric drives.

Standard display mode

Pressing the ON/OFF button briefly opens the settings menu. In this view, you can adjust the position of TRIP, ODO, TRIP TIME, AVG SPEED, MAX SPEED and WATT on the main display by briefly pressing the "+" or "-" buttons. Press the ON/OFF button briefly to move to the next module. Hold down the ON/OFF button to save the settings and exit the menu.



6. Cleaning and servicing.

6.1 Cleaning and disinfecting

6.1.1 Cleaning

To ensure functional safety and the appearance of the bicycle, it must be regularly cleaned and cared for. Please observe the following guidelines:

- Never allow dirt to dry onto the bicycle, but always remove it with water and a soft cloth or sponge. Otherwise you may damage the bearings, the paintwork or the decorations.
- Do not use aggressive cleaning agents. Use a mild detergent solution to clean.
- Repair paintwork damage immediately.
- The components of the drive system can be cleaned with a soft cloth moistened with commercially available cleaning products or soapy water, but not wet.

Please also pay attention to our general cleaning and hygiene advice. This can be found at **www.schuchmann.de/mediathek**.



Danger due to rotating parts

The motor can set itself in motion unexpectedly, if the drive system remains switched on when carrying out cleaning work on the **momo therapy bicycle** with E-drive.

- Remove the E-drive battery before cleaning.



Never use high-pressure cleaning equipment

The use of a steam jet, high-pressure cleaning equipment or a water jet for cleaning is not permitted. The ingress of water into the control box, motor or electrical connectors can destroy the equipment.

6.1.2 Disinfection

Various products can be used for surface disinfection of metal and plastic parts.

Liquid disinfectants are available as ready-to-use solutions that are sprayed on and evenly applied with a soft cloth. Alternatively, wipes pre-soaked with disinfectant can be used to wipe the products over the entire surface. In both cases, care must be taken to ensure complete wetting. Disinfection in fully automatic disinfection systems is also possible and recommended. The exposure times may vary and can be found in the manufacturer's instructions for the products used.

6. Cleaning and servicing.

6.1.3 Chain maintenance

Drive chains must be regularly cared for. This is in particular the case after riding in rain. The chain must be lubricated with a commercially available chain oil. Due to the expansion of the chain which is a natural result of use, regular inspection of the chain tension is required (see **Point 3.4**).

6.2 Servicing / controls

Please perform a daily visual inspection and regularly check the bicycle for cracks, fractures, missing parts, malfunctions, and secure screw connections. In case of a defect or malfunction, please contact the specialist dealer who supplied you with the product (see **Point 9.4**).

6.3 Maintenance

For reasons of user safety and to maintain product liability, maintenance needs to be carried out every 1000 km, however at least once a year, by a specialist dealer (see **Point 9.4**). The maintenance work carried out must be documented in the maintenance plan (see **Point 6.3.2**). The electric drive (incl. battery pack) does not require maintenance if used properly and carefully.

6.3.1 Maintenance specifications

- Check the chain and chain tension, adjust if necessary, clean and oil.
- Check rear wheel track, adjust if necessary.
- Check bottom bracket and lubricate if necessary.
- Lubricate pedal bearing, check bearing clearance and if necessary adjust or replace.
- Check the hub gear and adjust if necessary.
- Check the brake system for function, adjust if necessary. If the braking effect is poor, check the condition of the hand lever, cable, brake lever and brake lining, readjust and replace if necessary.
- Lubricate joints and bearing points.
- Replace kinked or clamped cables.
- Check rims for side and top impacts.
- Check the spoke tension and adjust if necessary.
- Check the tyre profile.
- Check the lighting and signal system.
- Check rear hub and lubricate if necessary.
- Check frame and fork for damage and replace if necessary.
- Have a current leakage measurement of the E-drive carried out annually.
- Check the fixation of all cables and parts.
- Check the function of the entire electrical system.
- Check the operational safety of the battery.
- Retighten screw connections using the specified torque values indicated on the respective components, if applicable.



6. Cleaning and servicing.

Danger of malfunction in case of incorrect maintenance

Improper maintenance of the electric drive can cause damage to essential components. This might cause a fall.

- Maintenance work may only be performed by your specialist dealer (see **Point 9.4**).

Danger due to unforeseen motor activity

The motor can set itself in motion unexpectedly, if the drive system remains switched on when working on the bicycle.

- Before each intervention, remove the battery pack from the bicycle with E-drive.
- When restarting the bicycle after maintenance, assembly or repair, position the bicycle so that the drive wheel can rotate freely. Only then should the battery be inserted and the proper functioning of the drive checked.

6.3.2 Maintenance plan

Maintenance specifications of the manufacturer (see **Point 6.3.1**) were carried out:

Date	Company	Name	signature



Any defects or damage found must be repaired by the specialist dealer or the manufacturer before reuse.

6. Cleaning and servicing.

6.4 Repairs

Bicycle repairs that are not performed by your specialist dealer are at the user's own risk and discretion.

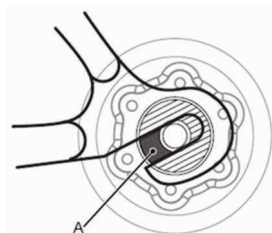


Caution

When reinstalling the drive, e.g. after a tyre change on the front wheel, the wheel nuts must be tightened again with a tightening torque of $45 \text{ Nm} \pm 5 \text{ Nm}$!

The torque support must be fully encircled by the dropout. The reserve in the mounting groove for the wheel axle in the dropout must be at least 5 mm!

The shoulder (A) of the torque support must point to the open side of the dropout!



6.5 Controls

Controls to be performed by the user of the bicycle if necessary:

- Check the chain and chain tension, adjust if necessary, clean and oil.
- Check the chain for wear, oil and replace if necessary.
- Check bottom bracket mounting and repair if necessary.
- Check pedals for clearance.
- Gear system – check settings.
- Check the handlebar and handlebar stem for damage and replace if necessary.
- Check the brake system for function and adjust if necessary.
- Check the tyre pressure and profile.
- Check the lighting and signal system.

6.6 Storage

Storage in winter

Prior to storing the bicycle in winter in a dry room with a constant temperature, clean it (see **Point 6.1**) and ensure that the tyre air pressure is sufficient (see **Point 3.3**).

Inspection in spring

Prior to using the bicycle again in spring, ensure that the tyre air pressure is sufficient and that there is no damage to the bicycle.



6. Cleaning and servicing.

6.7 Spare parts

Only use accessories and spare parts made by Schuchmann, otherwise you will endanger the user and the warranty becomes void.

Please contact the supplying specialist dealer to order spare parts stating the serial number of the bicycle (see **Point 9.4**). Necessary spare parts and accessories must only be installed by trained personnel.

6.8 Duration of use and re-use

The expected duration of use of our product, dependent on the usage intensity and amount of re-use, totals up to "8" years, if the usage takes place in accordance with the information in these instructions for use. It may be possible to use the product over and above this time period if it is in a safe condition. The expected duration of use does not refer to wear parts, such as for example covers, wheels, batteries.....The maintenance and evaluation of the condition, and if applicable the potential for re-use, must be decided by the specialist dealer.

The bicycle is suited for reuse. Prior to forwarding, please follow the cleaning and disinfection instructions stated in **Point 6.1**. Accompanying documents such as these Instructions for use are part of the product and must be passed on to the new user.



Should a serious incident occur during the service life of the product despite being used as intended, this must be reported immediately to the manufacturer and the competent authority.

6. Cleaning and servicing.

6.9 Error messages and troubleshooting

If errors occur during operation of the drive system, “**Error**” is indicated on the display. At the same time, instead of the current display of the speed, an error number appears.

The following table provides information about the possible error sources associated with these numbers and how the malfunction can be eliminated.

Error messages / Error codes on the display	Current Abnormal
21	overcurrent protection
Fix	Remove the battery and check the contacts. If the contacts are in good condition, reinsert the battery and restart the system. Please contact your specialist dealer (see section 9.4) if the contacts on the battery are damaged or the fault persists.

Error messages / Error codes on the display	Throttle malfunction
22	The rotary knob is not in the home position when the system starts up
Fix	Make sure that the rotary knob is in the home position when the system starts up. If the fault persists, the rotary knob is likely to be faulty. In this case, please contact your specialist dealer (see section 9.4).

Error messages / Error codes on the display	Motor phase problem
23	Problem with one of the motor phases
Fix	Check all connectors and cables leading to the motor. Restart the system. Please contact your dealer if the fault persists.

Error messages / Error codes on the display	Motor hall defect
24	Faulty Hall sensor in the engine
Fix	Check all connectors and cables leading to the motor. Restart the system. Please contact your specialist dealer if the fault persists.

Error messages / Error codes on the display	Brake fault
25	Brake motor cut-off malfunction
Fix	Restart the system, check that the brake lever is in the neutral position, and check the brake signal cable. If the fault persists, there is a fault in the system. In this case, please contact your dealer



6. Cleaning and servicing.

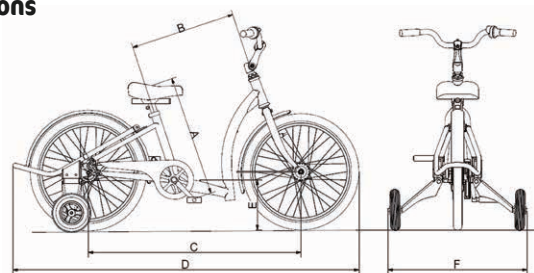
Error messages / Error codes on the display	Communication fault between the display and the controller
30	Communication between the display and the control unit is disrupted
Fix	Check the connector on the display cable. Inspect the display for visible damage. Restart the system. Please contact your specialist dealer (see section 9.4) if you notice any damage to the connector or the display, or if the fault persists.

Error messages / Error codes on the display	Power button sticking fault
31	The on/off switch is stuck
Fix	Check whether the button is stuck. If the problem persists, there is a fault in the system. In this case, please contact your specialist dealer

Error messages / Error codes on the display	6KM walk assist button sticking fault
34	The button on the parking assist has got stuck
Fix	Check whether the button is stuck. If the problem persists, there is a fault in the system. In this case, please contact your specialist dealer

7. Technical data.

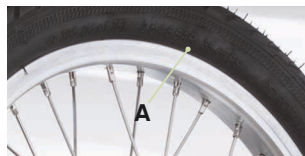
7.1 Dimensions



		12"	16"	20"	24"	26"
A*	Pedal to top edge of saddle	300 - 380 mm	420 - 575 mm	500 - 645 mm	590 - 765 mm	715 - 875 mm
A**	Pedal to top edge of saddle	330 - 410 mm	450 - 600 mm	520 - 680 mm	610 - 840 mm	730 - 950 mm
B	Saddle support tube to front tube	330 mm	390 mm	450 mm	530 mm	580 mm
C	Wheelbase	640 mm	760 mm	890 mm	1040 mm	1120 mm
D	Full length	990 mm	1220 mm	1480 mm	1680 mm	1780 mm
E	Access point height	160 mm	180 mm	200 mm	220 mm	230 mm
F	Full width	430 mm	520 mm	620 mm	710 mm	760 mm
	Tare weight	10,5 kg	13 kg	15 kg	18 kg	20 kg
	max. load	35 kg	50 kg	65 kg	100 kg	100 kg
* Dimensions with standard saddle post / ** Dimensions with T-saddle post						

7.2 Tyre pressure

The minimum and maximum tyre pressure is indicated on the casing (**A**).



7.3 Torque information

Pedal crank	40 Nm
Front wheel	20 Nm - 22 Nm
Heinzmann wheel hub motor	35 Nm
Rear wheels not powered	25 Nm - 30 Nm



7. Technical data.

7.4 E-drive

system	
Protection class	3

Control	
Operating voltage	36 V
Max. current	depending on design & operation: 10 - 33 A

Motor	
Type	PRA 180-25
Motor nominal voltage	22.8 VAC
Output	250 W Pedelec (DIN EN 60034-1)
Speed during travel on the flat	depending on design & wheel diameter approx. 60-330 1/min
Torque	11.4 Nm
Impulse torque	up to 60 Nm
Overtemperature protection	Type KTY84-130
Overall motor diameter	Ø 220 mm
Weight	4.5 kg
Protection class	IP54
Consumption	0.5 - 1 kWh/100km

Battery		
Type	Lithium ion battery	
Nominal voltage	36 V	
Capacity	20 Ah, 720 Wh	
Charging time	approx. 8.5 h (at charge current 2 A)	
Temperature ranges	Operation	(-)20 - 60°C
	Charging	0 - 45°C
	Storage	(-)10 - 35°C

7. Technical data.

7.5 Lighting system

Front lighting	
Type	AXA Pico 30-E 6V-42V
Luminous intensity	30 lx
See	50 m
Be seen	3000 m
Lateral visibility	Yes
Including reflector	Yes
On/off switch	Yes
Automatic light/dark sensor	No
Parking light	No
Daytime running light	No
Suitable for E-bike	Yes, 6-42 V
Primary colour	black
Product weight	70 g
Technology	LED

Rear lighting	
Type	Heinzmann
Registration light	StVZO
Assembly	integrated in the battery
Technology	LED
Integrated reflector	Yes



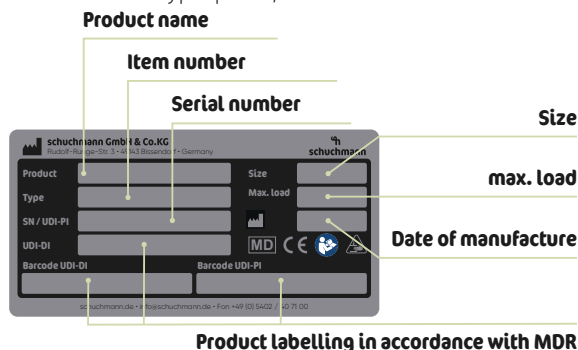
8. Guarantee.

The two-year statutory guarantee period shall apply for all products. This begins with the delivery or handover of the goods. Should a verifiable material or manufacturing fault occur within this time period, we shall, after carriage paid return to us, view the indicated damage and, if applicable, either repair or deliver a new product at our discretion.

9. Identification.

9.1 Serial number / date of manufacture

The serial number, the date of manufacture and other information can be found on the type plate, which is located on all of our products (**A**).



9.2 Product version

The **momo therapy bicycle**. is available in five sizes (12" – 26") and can be supplemented through a diverse range of accessories (see **Point 4**).

9.3 Issue of the document

Instructions for use **momo therapy bicycle**. –
Change status N; Issue 2026-06-22

9.4 Name and address of the manufacturer, specialist dealer supplying the product

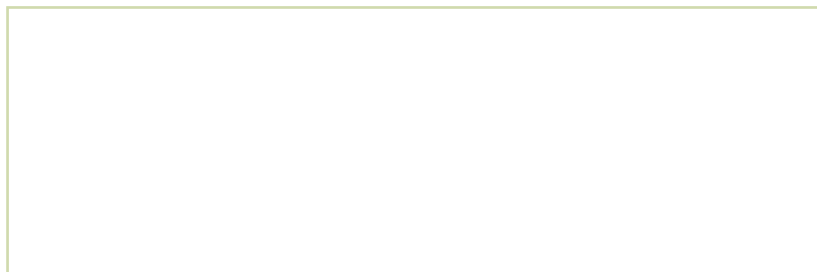
This product was manufactured by:



Schuchmann GmbH & Co. KG

Rudolf-Runge-Str. 3 · 49143 Bissendorf · Germany
Phone +49 (0) 5402 / 40 71 00 · Fax +49 (0) 5402 / 40 71 109
info@schuchmann.de · www.schuchmann.de

This product has been delivered by the following specialist dealer:







schuchmann.de