



User manual

Edition: 5/2017



General remarks

- * It is essential that you and any other operator of this product read and understand the content of this manual before installing and using this product !
- * In order to minimize operation errors, this manual must be accessable to the staff at all times.
- * The Hoverboard is only to be used as instructed.
- Please refer particularly to the user manual of the stretcher.
- * Descriptions do not necessarily depict contents and are not true to scale.
- * We take no liability for damages caused by operating errors or incorrect assembly.
- * Please pay close attention to the country-related, applicable safety regulations for patient transfer.
- * Subject to technical changes.

HOVERBOARD GmbH

Gewerbepark 10

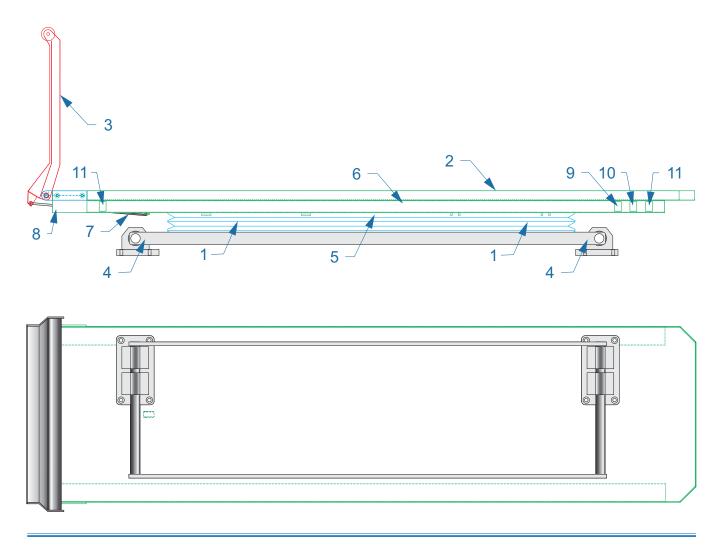
A-6068 Mils - AUSTRIA





Specification

- 1... Pneumatic suspensions with automatic weight adjustment from 40 to 400 kg and hydraulic shock absorbers. Total vertical stroke 180 mm.
- 2... Stretcher mounting panel
- 3... Loading ramp with cylindric roller
- 4... Pneumatic cross movement device (option), adjustment range 255 mm in 8 positions
- 5... Switch box, contains: a) compressor 12V DC, 25A with check valve
 - and integrated thermal overload protector.
 - b) relay 12V DC
 - c) magnetic valves 12V DC
 - d) terminal block
 - e) noise insulation
- 6... Air pressure tank (4 litres) with pressure switch
- 7... Gas spring
- 8... Micro switch (option)
- 9... Main switch (option)
- 10.. Toggle switch for highest position (e.g. for reanimation) (option)
- 11.. Pushbutton switch for pneumatic unlocking of the cross motion







Technical data

- * Standard Hoverboard for assembly of various stretchers according to EN 1865 combined with their approved fixation.
- * Height lowered: 140/180 mm 5,5/7,1" without/with lateral movement device Height when active: 240/280 mm - 9,5/11,0" without/with lateral movement device Height for reanimation: 320/360 mm - 12,6/14,2" without/with lateral movement device
- * Total length including closed loading ramp ~ 2140 mm.
- * Total weight 80/103 kg 176/227 lbs without/with lateral movement device
- * Maximum loading capacity 400 kg (incl. stretcher)
- * Ignition AND main switch ON: Device ready Ignition OR main switch OFF: Device lowered (e.g. for loading)
- * Electric connection: All wires must be at least 2,5 mm² ! brown = ground (wire no. 31)
 red = permanent positive (for pneumatic unlocking of the lateral movement device, fused in the vehicle with 10A (wire no. 30)
 orange = ignition positive, fused in the vehicle with 30A (wire no. 15)

The valve-control-circuit is internally fused with 5A

* Max. power consumption 25 A at 12 Volt DC

Disinfection, cleaning and maintenance

- * Disinfection and cleaning of the Hoverboard shall be performed according to the regulations of the respective country.
- * The Hoverboard does not require further maintenance. In case of faults or queries, please send a mail to

info@hover.at

* For complete repair instructions to download please refer to

www.hover.at





Starting up

- * After successfull assembly and electric connection, start ignition of vehicle and turn on the green main switch (option).
- * The compressor will fill the air supply tank to approx. 8,2 bar within about 2 minutes and the Hoverboard is ready.
- * The Hoverboard works automatically --> when the air pressure has lowered to approx. 7,5 bar, the compressor starts automatically for approx. 15 seconds again. This allows constant operating pressure.
- * By turning off the ignition or the green main switch (option) or opening the loading ramp, the Hoverboard is automatically lowered to allow easy and energy-efficient loading and unloading.
- * During regular air suspended drive, the toggle switch (option) is set on I. For lifting the Hoverboard to highest position (e.g. for reanimation) switch it to II.
- * By pushing one of the pushbuttons, the lateral movement device (option) will unlock pneumatically. While keeping pushed, you can sway the Hoverboard crosswise in 8 positions of 32 mm (total = 256 mm). Releasing the button means locking in the nearest position. This option also works with ingition off. In case of failure or lack of air pressure you may unlock it by the knobs.
- * For correct loading and unloading please refer to the instructions of the stretcher. Please pay attention to the correct locking of the stretcher on the Hoverboard.

CAUTION !

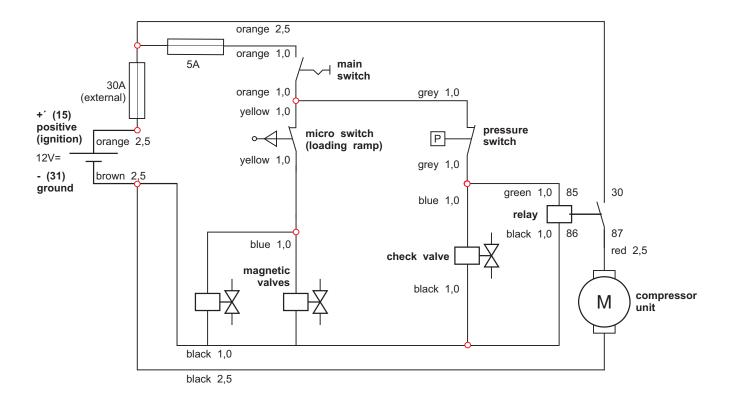
The stretcher should always be held when opening the loading ramp !







Circuit diagram



target	colour	cross-section	target	colour/cross-section	
ground (31)	brown	2,5	 compressor relay (86) 	black 2,5 black 1,0	
mag. check v.	black	1,0	 mag. valve 2 mag. valve 2 mag. valve 2 	1 black 1,0 2 black 1,0	
micro switch	yellow	1,0	- mag. valve 2 - relay (85)	2 blue 1,0 green 1,0	
pressure switch pressure switch	0,	1,0 <u> </u>	– mag. check	v. blue 1,0	
main switch main switch relay (87)	orange orange blue	1,0 • • 1,0 • • 2,5 • •	 micro switch fuse 5A compressor 	yellow 1,0 orange 1,0 red 2,5	
ignition (15)	orange	2,5	- relay (30) - fuse 5A	orange 2,5 orange 1,0	



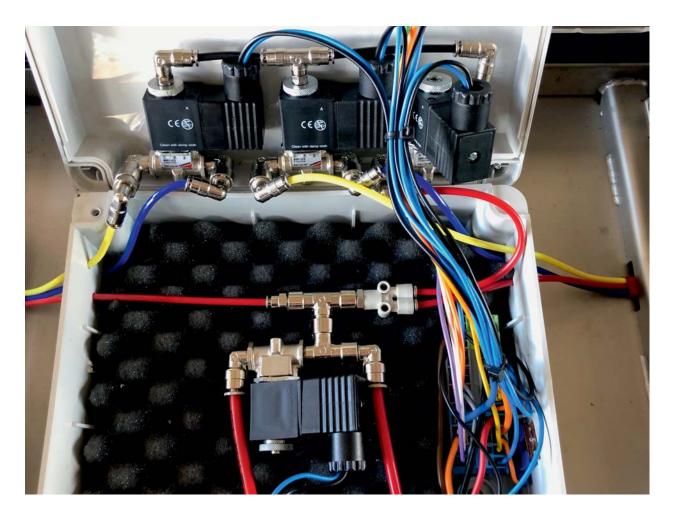




target	colour	cross-section	target colou	ur/cross-section
ground (31)	brown	2,5	– compressor – relay (86)	black 2,5 black 1,0
mag. v. LMD	black	1,0	– mag. valve 1	black 1,0
mag. check v.	black	1,0	– mag. valve 2	black 1,0
			 mag. valve 1 	blue 1,0
micro switch	yellow	1,0	– mag. valve 2	blue 1,0
proceuro owitch	arov	10	– relay (85)	green 1,0
pressure switch	• •	1,0 — • • 1,0 — • •	 mag. check v. 	blue 1,0
main switch	orange	1,0	 micro switch 	yellow 1,0
main switch	orange	1,0	– fuse 5A	orange 1,0
relay (87)	blue	2,5	 compressor 	red 2,5
			– relay (30)	orange 2,5
ignition (15)	orange	2,5	– fuse 5A	orange 1,0
	blue	1,0	 LMD switch front LMD switch back 	red-white 1,0 blue-white 1,0
mag. v. LMD	DIUE		LMD switch front	red-white 1,0
positive (30)	red	2,5	 LMD switch back 	blue-white 1,0

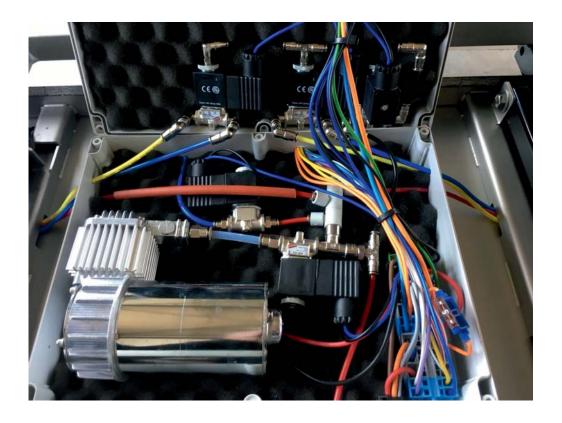






target	colour	cross-section		target	colour/cross-section		
ground (31) mag. valve up	brown black	2,5 1,0	- 0 - 0	 compressor relay (86) 	black	2,5 1,0	
mag. check v.	black	1,0		mag. valve mag. valve mag. valve	2 black	1,0 1,0 1,0	
toggle switch	blue	1,0		mag. valve mag. valve mag. valve		1,0 1,0 1,0	
pressure switch pressure switch	0, 1	1,0 1,0	• • •	— mag. check	•	1,0	
main switch main switch	orange orange	1,0 <u> </u>		micro switch fuse 5A	n yellow orange	1,0 1,0	
relay (87)	blue	2,5	• • •	— compressor — relay (30)	orange	2,5 2,5	
ignition (15) toggle switch toggle switch	orange white violet	2,5 1,0 1,0	0 0 0 0 0 0	fuse 5A micro switch mag. valve	,	1,0 1,0 1,0	





target	colour	cross-sect	tion	target	colou	ır/cross-sec	tion
ground (31) mag. valve up mag. v. LMD	brown black black	2,5 1,0 1,0	• • • • • •	– compress – relay (86) – mag. valv		black black black	2,5 1,0 1,0
mag. check v.	black	1,0	• • •	– mag. valv – mag. valv		black blue	1,0 1,0
toggle switch	blue	1,0	• • •	– mag. valv – relay (85)		blue green	1,0 1,0
pressure switch pressure switch	• •	1,0 —— 1,0 ——	<u> </u>	– mag. cheo		blue	1,0
main switch main switch	orange	1,0 <u> </u>		 micro swit fuse 5A 	tch	yellow orange	1,0 1,0
relay (87)	light blue	,		 compress relay (30) 		red orange	2,5 2,5
ignition (15)	orange	2,5		 fuse 5A LMD swit 		orange red-white	1,0 1,0
mag. v. LMD	blue	1,0	• • •	 LMD swit LMD swit LMD swit 	ch back	blue-white red-white	,
positive (30) toggle switch	red white	2,5 1,0		 LMD swit LMD swit micro swit 	ch back	blue-white	,
toggle switch	violet	1,0	0 0	mag. valv	e up	blue	1,0











Air suspension 30620 > with shock absorber 30621 > without shock absorber

30311 Air cushion

30053 Check valve



30054 Magnetic valve

30063 Pressure switch, pre-adjusted

30207 Compressor



30291 Level control valve

30292 Valve control bow

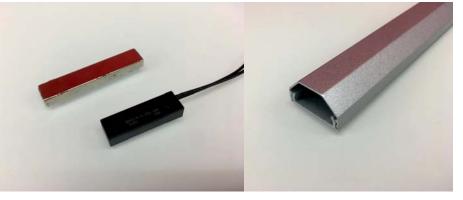
30271 Air fittings



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30071 Micro switch

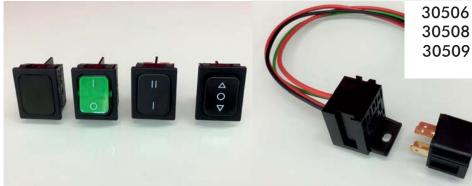
30072Reed switch30073Bar magnet

30091 Cable conduit



31270 Terminal grey31271 Terminal green-yellow31272 Terminal blue

30251 Fuse holder 30252 Fuse 30A 30253 Fuse 5A 30500Connector 2 pins, T, f30501Connector 3 pins, T, f30502Connector 2 pins, even, f30504Connector 2 pins, T, m30505Connector 3 pins, T, m30506Connector 2 pins, even, m30508Connector 10 pins, f30509Connector 10 pins, m



30268 Dummy cover
30267 Main switch green
30265 Toggle switch (I-II)
30266 Pushbutton (^)

30520 Relay 30530 Relay holder



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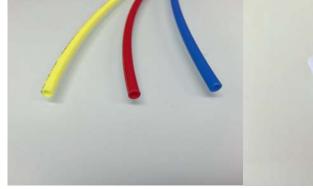




30081 Rubber bellows 30082 Fabric bellows

30222 Switch box internal (240 x 190 mm)
30221 Switch box external (without compressor)

30223 Switch box internal (230 x 300 mm)



- 30244Pressure tube 4 mm, red30245Pressure tube 4 mm, blue
- 30246 Pressure tube 4 mm, yellow

30248 Teflon tube, white

31080 Thermal protection

tube, red



30341 Brass bushing



30342 Cable grommet

30344 Rubber grommet

30352 Plug 30 x 30 30361 Plug 60 x 40









 30110
 Gas spring 200 N

 30112
 Gas spring 350 N

 30113
 Gas spring 450 N

30121Castor585 mm30122Castor610 mm

30141 Rubber buffer



30302 Shock absorber, adjustable

Y

30400 Button 6 mm 30401 Button 8 mm



30541 Stop bolt



31283 Cord clip

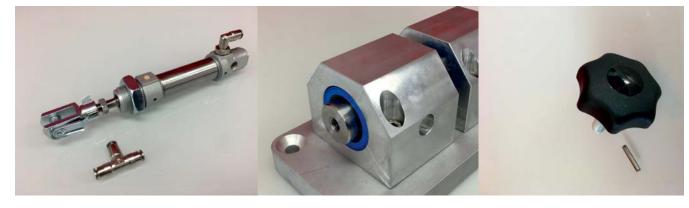
50132 gas spring extension

50150 Ramp bracket 30 mm 50152 Ramp bracket 20 mm



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31010 Pneumatic cylinder

31030 linear bearing

31040 Tommy screw



- 51030 toothcomb back 51040 toothcomb front
- 51060 Locking bolt
- 30249 Helix tube blue