



A DIRECT HEALTHCARE GROUP COMPANY

# EASY HighBack

Teknisk manual



## EASY HIGHBACK

# EASY HighBack

EASY in the high-back version (HB) is a development of the conventional concept using the back strap/neck support already available. This hygiene chair is fitted with a high, padded, water-repellent back complete with neck support (available in two versions). The high backrest provides soft yet stable support and its lower section is fitted with a pliant lumbar support for additional comfort.

EASY HB is designed with telescoping pillars to create as much space and flexibility as possible for care personnel in the performance of their work.

EASY is available with our new, soft Comfort seat with an opening at the rear for a more natural, hygienic working method.

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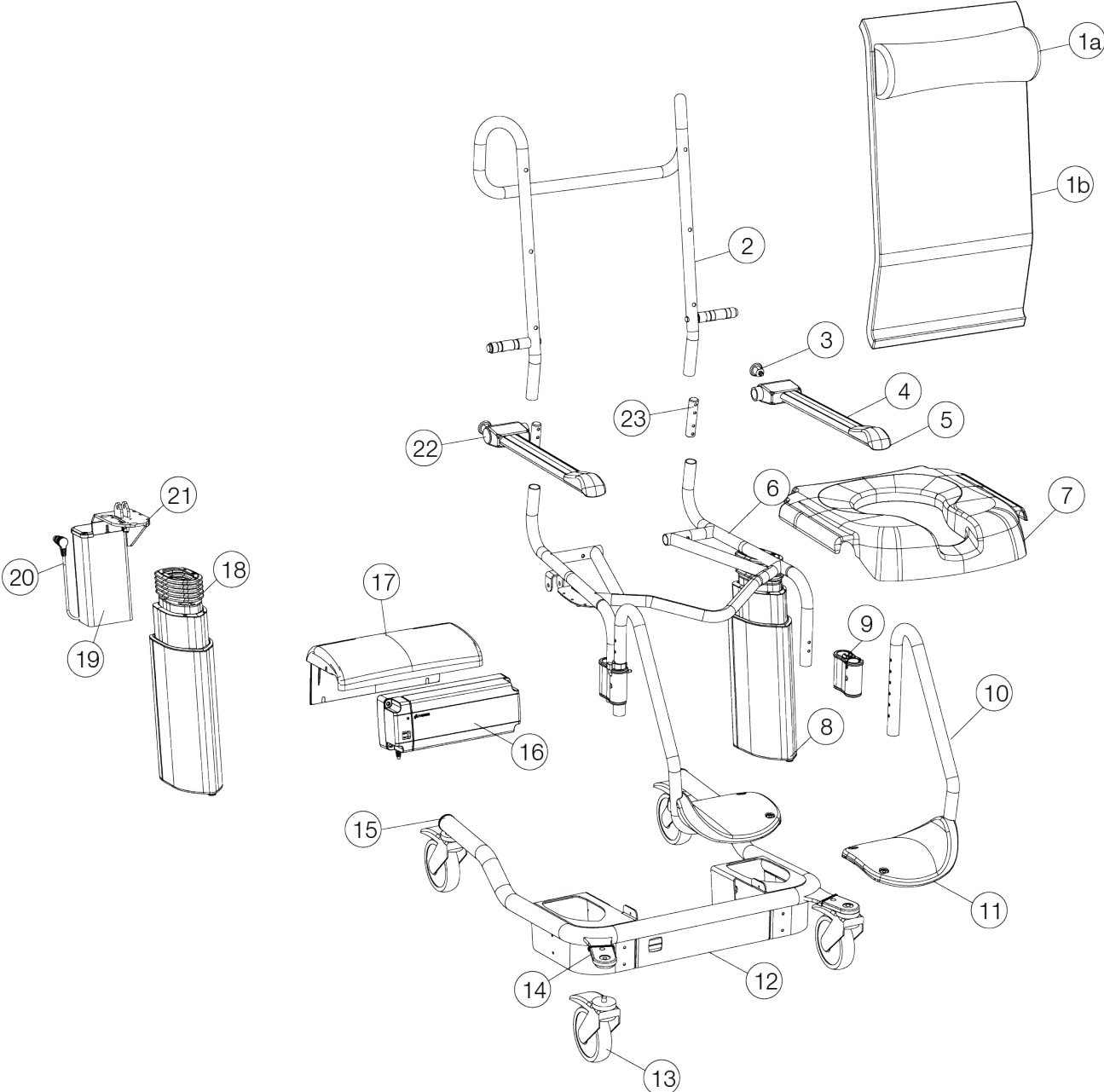
## 1. Detaljförteckning

<b>1a</b>	58-248-M	Headrest M
<b>1a</b>	58-248-L	Headrest L
<b>1b</b>	58-247-FLEX-1	Back/Foam-Flex
<b>2</b>	58-295-1	Backrest HB
<b>3</b>	57-288-2	Armrest lock
<b>4</b>	58-294-L/R	Armrest HB (left/right), alloy only
<b>5</b>	58-209	Handrest
<b>6</b>	58-284-1	Seat frame HB
<b>7</b>	57-250-1	Plastic seat
<b>7</b>	56-233	Plastics/keyhole, green
<b>8</b>	58-280-L/R	Pillars, complete (left/right)
<b>9</b>	58-277	Holder/footrest
<b>10</b>	58-283-1-L/R	Footrest tube (left/right)
<b>11</b>	58-296-1	Footrest
<b>12</b>	58-281-1	Bottom frame
<b>13</b>	57-049-RF	Wheel with bolt - fully braked
<b>13</b>	57-040-RF	Wheel with bolt - directional lock and fully braked
<b>14</b>	58-360	Cover
<b>15</b>	57-793	End plug
<b>16</b>	58-253	Battery Pb 5,0 Ah
<b>17</b>	58-291	Cover, control box
<b>18</b>	58-293	Bellows (silicone)
<b>19</b>	58-282	Cap/tilt actuator
<b>20</b>	58-252	Actuator TA16
<b>21</b>	58-290	Cover plate, left
<b>21</b>	58-289	Cover plate, right, incl. holder tilt actuator
<b>22</b>	57-235	Cover/armrest
<b>23</b>	58-243-1	Connectors

## 2. Reservdelar

<b>Part no.</b>	<b>Description</b>
58-255	Charger, universal volt
58-255-1/2/3/4	Cable for 58-255 (EU; UK; US; AUS)
58-254	Remote control for Easy

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### 3. Tillbehör

<b>Part no.</b>	<b>Description</b>
56-205	Shower seat around hole
56-206	Soft PU seat
56-212-EASY	Barrier (52cm), Easy
56-213	Splashback
56-214	Armrest lock (M8)
56-216	Infill
56-217	Waist belt/thigh belt
56-218	Slides
56-220-EASY	Heel strap kit (pair), Easy
56-221-HB	Width kit (+50mm) Easy HB
56-227-L	Calf rest, left
56-227-R	Calf rest, right
56-229	Chest belt
56-232	Plug, soft seat
56-234	Comfort seat/back opening, green, Easy
56-260-L	Footrest, left
56-260-R	Footrest, right

## 4. Cleaning and maintenance

The chair is made of stainless steel pipes (powder coated) and aluminium. Exposed details that have not been painted are made of aluminium or stainless steel. Be sure to check that the product feels stable / slip-free - no loose screw joints may be present. Damaged or defective parts should be replaced as soon as possible. After performing maintenance below, reset the service indicator (see page 7).

### Cleaning, general

- Clean the chair by wiping with a common detergent (NOT based on Pentanol) or washing machine / autoclave (max 85 degrees).

NOTE: Remote control / control box or coupling (female) (if remote control is removed before washing) must be protected from high pressure water. This can be done with a plastic bag or the like that can withstand the water pressure of the washing machine. Place remote control / control box or connector (female) so that running water cannot penetrate.

- Seat - can be removed and cleaned separately or washed in machine / autoclave (max 85 degrees).
- The pillars - cleaned with commonly used cleaning / disinfectants in health care (alcohol-based). The pillars should be cleaned with agents that partly dissolve fat and partly remove lime stains. When cleaning the pillars, the chair is set at maximum height. Apply detergent and allow to work as directed (make sure the agent also flows into the pillar), rinse.

NOTE: At regular intervals, the pillar bottom plate should also be cleaned - this is done by removing the bottom plug (see Figure 18) and cleaning agent applied directly to the pillar. Let water work / rinse out. Mechanical machining may be needed.

NOTE: To avoid pinch damage - be sure to always reposition the protective cap.



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### Check thoroughly (at least once a year)

1. Armrests - so that the slip guard / wrist guard is intact and fixed.
2. Pillars - Calibrate the chair and then check its functionality with the remote control. Make sure the pillars (up / down) are synchronous and feel loose. Also, check the bellows so that they are whole - these must be replaced if they are damaged.
3. The seat / soft seat - is complete and without cracks. No sharp edges may be present.
4. Footrest plates - are whole and possible to adjust in the intended way. Make sure clips are fully and securely fastened. The heel straps should be located on the back of each footrest plate.
5. Wheels - Do not roll slowly or sit loose. Also check that the brake is working.
6. Back / Headrest should be complete and have no holes or other damage to the straps / locking brackets.





## 5. Replacement of remote control

Incorrect remote control is easily changed by releasing the contact / remote control on the left pillar - new remote control is mounted in the same way.

NOTE: It is important that contact is locked with the clamp lock to ensure IP X5.

## 6. Calibration of actuators

The calibration of the actuators (height / lowering only) is normally done fully automatically each time the chair reaches its end positions (min height, max tilt).

If the chair still does not go in parallel or if the tilt function does not seem to work, an ACTIVE calibration can be done. This is done by holding down <button-slow / up> + <button-slow / down> simultaneously.

After about 15 seconds the chair will be moved to its end positions ie. my height and maximum slope backwards. Hold down the buttons until the end positions are reached. Release the buttons and wait 5 seconds. The chair is now calibrated and can be used again.



Calibration should NOT be done with user in chair. Note that all 3 actuators move during the calibration phase. Otherwise, cancel the calibration immediately and contact Customer Service / GATE (or your local dealer).



## 7. Reset service indicator

The remote control has a service indicator for periodic maintenance reminder (min once a year). The service indicator measures voltage and is activated after 11 months (flashes every 4 seconds). After 12 months the indicator will glow steadily.

The indicator is reset by holding down buttons on the remote control (top line, <fast up>, <fast down>) for 30 seconds.



## 8. Troubleshooting when chair cannot be operated

NOTE: Chair cannot be operated over seat height 65cm if chair is tilted forward. Seat can also not be tilted forward if seat height is higher than 65cm.



Before starting troubleshooting - always restart the battery (see below - hold the battery OFF) button for about 5 seconds. Wait a minute. Activate the battery through its ON button).

- |   |  |
|---|--|
| <p>1. Check the battery charge via the remote control's battery indicator (activate the remote control if necessary by pressing any button).</p> <p>1a. Indicator shows green ==&gt; Calibrate actuator (see page 7).</p> <p>1b. Indicator shows red ==&gt; Charge the battery.</p> <p>1c. Indicator is off ==&gt; Connect the charger to the remote control. If charging is indicated in the remote control, charge the battery as instructed. If charging is not indicated - continue to 2.</p> | <p>2. Switch off the battery manually using the Battery Off button (see below). Wait a minute. To activate the battery, press its On button (see below). Make sure the battery indicator light is on or flashing.</p> <p>The indicator light is on / flashing ==&gt; Replace the remote control and charge the battery as instructed.</p> <p>The indicator light is not on / flashing ==&gt; Change battery.</p> |
|---|--|

If the above has been done and the chair cannot be operated - contact Customer Service / GATE.



## 9. Safety instructions

Shower chair should only be used:

- As a shower / hygiene tool
- Indoors, on flat and hard surfaces

## 10. ID label

1. Part number
2. Product name
3. Date of manufacture
4. Max user weight
5. Serial number
6. Warning: see instructions for use
7. EAN code



## 11. Warranty

We normally provide a 2-year warranty on manufacturing defects (does not apply to wear details or battery). The battery is given a 6 month warranty on manufacturing defects. For more information or questions please contact:

Gate Rehab Development AB  
 Industrigatan 2, S-333 75 Reftele  
 tel 0371-318 00  
 info@gaterd.se  
 www.gaterd.se



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## 12. Technical specifications

### Material

Aluminium  
 Plastic (PP, PP/GS, PA, PA/GS, TPE, Silicone)  
 Textile Dartex  
 Foam (PUR)  
 Steel (Stainless)  
 Frame / stand Powder coating (polyester)

### Specification power system

Actuator	Raise/lower/pillars	Tilt function
Voltage	24V	24V
Lift	100kg/pelare	150 kg
Stroke	400 mm	75 mm
Installation dimensions	377 mm	198 mm
Protection class	N/A	IP66W
Protection class pillars	IPX5	
Speed - without load	32 mm/s	11,5 mm/s
Speed - full load	19 mm/s	7 mm/s
Blocking when lifting	100 kg	150 kg
Operating temperature	5-45°C	5-45°C

### Battery TBB6

Voltage	24 V
Capacity	5 Ah
Type	Pb
Protection class	IP66W

### Battery charger TP9

Voltage in	100-240V 50/60 Hz
Voltage	29V

### Control box TC14

Processor	MCU 3 motorer
Protection class	IP66W

### Wiring Diagrams / Control box

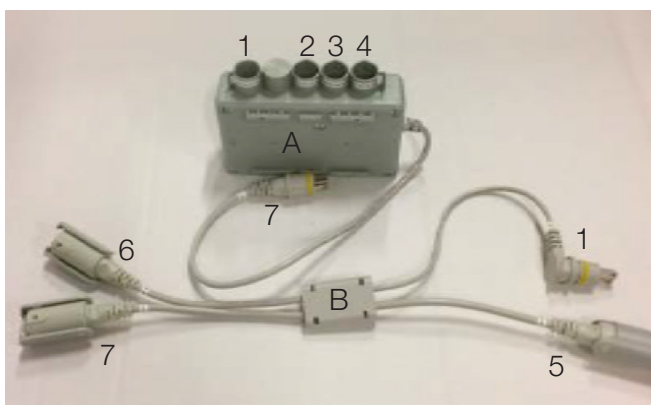
The control box is reached by removing the protective cap - 4 screws.



Control box with battery with removed cover.



Actuators (2x up / down and 1x tilt), The actuators are connected directly to the control box as below. Remote control and battery are connected via spindle cable to control box as below.



Control box (A):

1. Connection connector # 1 / Spindle cable
2. Actuators up / down - left
3. Actuators up / down - right
4. Actuators tilt
7. Connected to spindle cable # 7

Spindle cable (B):

1. Connects to input # 1 on control box
5. Remote control
6. Battery
7. Connects to outgoing connector on control box

### 13. Information on EMC

The Easy hygiene chair has been tested to work in Hospitals and Home Health Care environments. The main function of the hygiene chair is to be able to operate upwards / downwards, backwards / forwards as well as charging the battery. Testing has shown that as long as the chair is subject to interference within the limits of this standard, no loss of main functions can be detected. Disturbances that are more powerful than these tests show, can affect the functions of the hygiene chair in such a way that they are manoeuvrable.

The hygiene chair consists of the following cables:

- AC cable for charger, 3 conductors, 2.0 m
- DC cable between charger and remote control, 2 split, 1.0m
- Signal - cable between control box and remote control, 2.5m



**WARNING:** Always replace the Hygiene Chair's electrical components or cabling with original parts from supplier. Failure to do so may affect the product's EMC approval.

Avoid placing / using the chair less than 0.35m from other medical equipment and / or mobile phones (or other transmitting equipment). This is because there is then a risk that the main functions of the product will not work as intended or that our product may interfere with other medical equipment.

### 14. Further information on EMC, advanced


The EASY hygiene chair ("product") is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The product uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The product is suitable for use in all establishments including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

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The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	+/- 8 kV contact +/- 2,4,8,15 kV air	+/- 8 kV contact +/- 2,4,8,15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient / Burst IEC 61000-4-4	+/- 2 kV for power supply lines  +/- 1 kV for input/output lines	+/- 2 kV for power supply lines  n/a. for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	+/- 1 kV differential mode  +/- 2 kV common mode	+/- 1 kV differential mode  n/a. for common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle  40 % UT (60 % dip in UT) for 5 cycles  70 % UT (30 % dip in UT) for 25 cycles  <5 % UT (>95 % dip in UT) for 5 sec	<5 % UT (>95 % dip in UT) for 0,5 cycle  40 % UT (60 % dip in UT) for 5 cycles  70 % UT (30 % dip in UT) for 25 cycles  <5 % UT (>95 % dip in UT) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the [Equipment or System] requires continued operation during power mains interruptions, it is recommended that the [Equipment or System] be powered from an uninterruptible power supply or battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

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Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
			<p>Portable and mobile RF communications equipment should be used no closer than 0,35m to any part of the product, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance</p> <p><math>d = 1,2\sqrt{p}</math>      80 MHz to 800 MHz</p> <p><math>d = 2,3\sqrt{p}</math>      800 MHz to 2.5 GHz</p> <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range.</p> <p>b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol.</p> 

NOTE 1 At 80MHz and 800MHz, the higher frequency range applies.  
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflected from structures, objects and people.

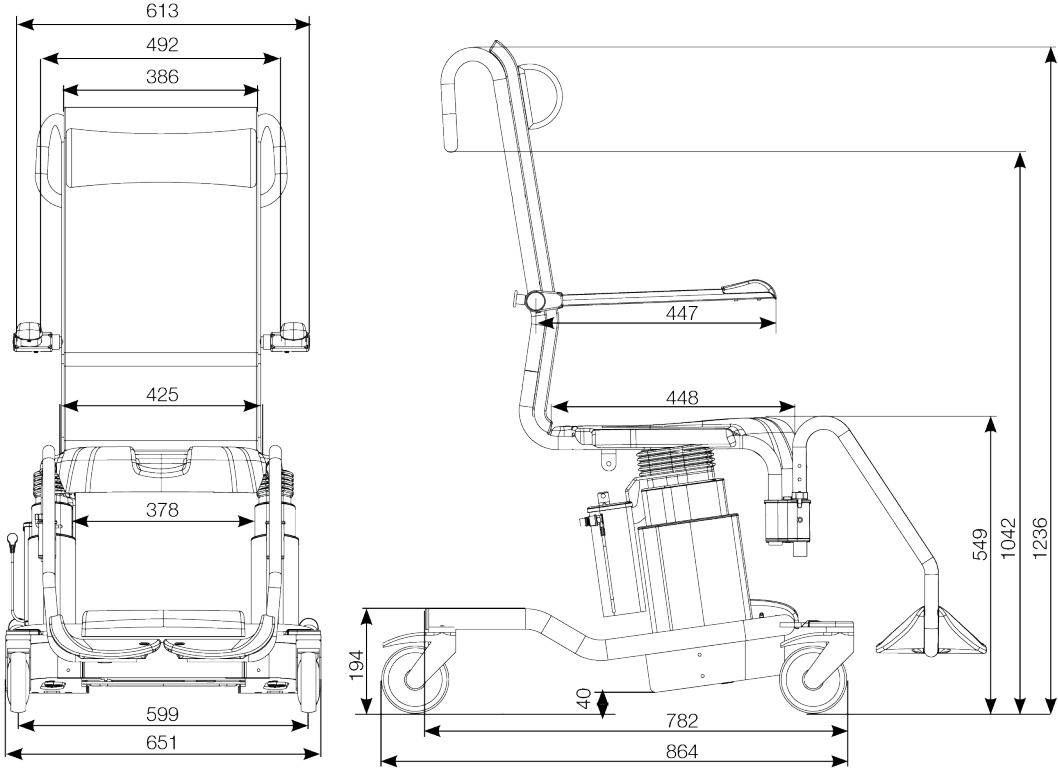
Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the product.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 10 V/m.



15. Dimensions

All dimensions in millimeters and with 125 mm wheels. When using Double wheels / 100mm, width over wheels increases by + 30mm.



## EASY HIGHBACK





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LIT-00113 Issue 1  
Date: January 2020

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