

VANCARE[®]

We move body and mind

Five-Position Recumbent/Supine Lift

The Lift that offers superior safety, comfort and convenience



VANCARE Inc.

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Recumbent/Supine Lift Technical Information

Manufacturer: VANCARE Inc.
1515 1st Street, Aurora, NE 68818
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www.vancare.com

Recumbent/Supine Lift Model

Model #1-04000B	Recumbent/Supine Lift
Model #1-0400SB	Recumbent/Supine Lift – Scale Model
Transfer Ratings	24 Volts DC (Rechargeable) 5.2Amp 400 Lbs. Maximum Capacity Duty: 10% Int.; 1 min on / 9 min off
Height	18 1/4" Minimum clearance from floor
Height	37 3/4" Maximum clearance from floor (Note: There is a 2" (two inch) adjustment to these clearances)
Length	69 3/4" Stretcher overall length
Width	21 3/4" Width of Stretcher only (Lift Overall Width)
Width – w/o scale	36" Door opening clearance
Width – w/scale	37 3/4" Door opening clearance

Recumbent/Supine Lift Technical Description

The VANCARE Recumbent/Supine Lift is used with Whirlpool or Aqua-Aire (air bubbling) bathing system intended for use in nursing homes, hospitals, and assisted living facilities to transfer and/or lift patients under the direct supervision of trained staff. Model #104100BSC is equipped with a Scale.

The purpose of this manual is to provide you with a recommended procedure to help you obtain the maximum efficiency and safety from your VANCARE Recumbent/Supine Lift Systems. All Transfer Lifts have locking rear casters.

WARNING

This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

Recumbent/Supine Lift Regulatory Data

Manufactured within the guidelines of the Standard For Safety of Medical Electrical Equipment UL 606001-1, CSA C22.2 NO. 601.1, IEC 60601-1

This equipment is not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

MEDICAL EQUIPMENT WITH RESPECT TO ELECTRIC SHOCK FIRE AND MECHANICAL HAZARDS ONLY IN ACCORDANCE WITH UL2601-1, UL60601-1, IEC60601-1, AND CAN/CSA C22.2 NO. 601.1

Safety Information and Patient Assessment for the VANCARE Recumbent/Supine Systems.



VANCARE Recumbent/Supine Lifts are designed and manufactured to meet or exceed the safety requirements for patient care equipment. In addition, they have been tested to insure their safety. It is important, however to know that materials can fail due to normal wear caused by use over time. Therefore before each patient transfer, it is required that the nursing staff inspect for proper operation and missing or worn parts such as belts, cushions, arms, casters, nuts and bolts. It is also required that a qualified maintenance staff inspect the lift at least monthly for missing parts or excessive wear that might cause the transfer lift to fail. A permanent record of each inspection and repairs should be kept by the facility.



Only personnel who have been thoroughly trained in the operation of the VANCARE Recumbent/Supine Transfer System should operate this equipment. Operation of this equipment by untrained personnel could result in injury to the operator or patient. Your VANCARE Patient Care distributor is available at your request to provide complete in-service training on the equipment's proper operation.



Before using the VANCARE Recumbent/Supine Transfer System, patients must be assessed by the facility's professional nursing or professional rehabilitation staff to determine which patients are suitable for transfer, which type of Transfer to use, and the number of staff members necessary to transfer each patient. Although one person can perform patient transfers, certain patients or situations may require the help of one or more additional staff members. For example, patients with unpredictable behavior due to dementia may require additional help if their behavior poses risk of injury to themselves or to staff members. Patients being transported in the VANCARE Recumbent/Supine Transfer with or without scale outside of the patient's room. The above information must be recorded in the patient's record and must be communicated to the staff.

Introduction

The VANCARE Recumbent/Supine Transfer System is designed to significantly improve the efficiency and environmental safety of your nursing care operation. However, the benefits designed into the Recumbent/Supine Lift will be realized only if the system is operated and cared for properly. The purpose of this manual is to provide you with a recommended procedure to help you obtain the maximum efficiency and safety from your Recumbent/Supine Transfer System.

VANCARE Recumbent/Supine Transfer Criteria

The patient must:

- Have no injuries or medical conditions that might be aggravated by the VANCARE Recumbent/Supine Transfer procedure.
- Weight less than 400 pounds.
- Be able to follow simple directions.
- Be able to lie restrained by the two belts with limbs inside of stretcher frame.
- Be evaluated for safety of extremities that are rigid or any problem he or she has that could cause injury or conflict with the safe operation of the Recumbent/Supine Lift.

Symbols and Term



WARNING

The warning symbol identifies important safety messages. Failure to obey a safety warning may result in injury to you or to others.

CAUTION

The caution heading identifies important maintenance and operation information. Failure to obey a caution warning may result in damage to the VANCARE Recumbent/Supine Lift and may void the warranty.

Left or Right

When the terms "left" or "right" are used with reference to the tub, this means left or right as you look at the control panel from the seat end of the tub. On the Recumbent/Supine Lift, "left" or "right" is as the resident sits.

Liability for Function or Damage

In every case, the owner or operator of these systems shall be liable for their function if the systems have been incorrectly operated, maintained or repaired by persons who are not trained in accordance with its specific application.

VANCARE Inc. shall not be responsible for any damage resulting from failure to observe these procedures.

Using the System

Before Transferring or Lifting



WARNING

Only personnel who have been thoroughly trained in the operation of the VANCARE Recumbent/Supine Lift should operate this equipment. Operation of this equipment by untrained personnel could result in injury to the operator or patient. Your VANCARE Patient Care Distributor is available at your request to provide complete in service training on the equipment's proper operation.

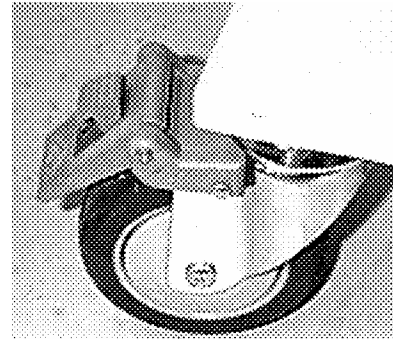
You are now ready to prepare for transferring the resident from the bed to the bath.

Before Transferring from Bed to Bath and/or Lifting (continued)

1. Install the mattress on the Recumbent/supine Lift. Ensure it securely fits into the Stretcher Frame.

WARNING

Push the **"RED EMERGENCY STOP BUTTON"** at any time, if needed, while raising or lowering the Recumbent/Supine Lift. Failure to do so could result in injury to the resident or operator.



2. Push the Recumbent/Supine Lift to the resident's bed and position it for a normal bed-to-wheel chair transfer.
3. Lock the brakes by stepping down on the lock-arm tab located on the back of the rear casters as shown in the locked position.

WARNING

The Recumbent/Supine Lift is pictured below in the first incline position. You may need to raise the level of the Recumbent/Supine Lift to the second or third incline position based on the resident's size and level of water in the tub. Adjust the incline **BEFORE** the resident has been transferred into the Bathing System. Failure to ensure the resident's head is above water level could result in injury to the resident or patient.

4. Transfer the patient into the Recumbent/Supine Lift using the proper nursing transfer techniques. Place the safety belts, one across the upper body and one across the lower body. Secure all belts to the proper attaching points on the stretcher.



Transferring the Patient at the bath station



WARNING

Failure to ensure that the Patient is properly secured in the Recumbent/Supine Lift before being transferred could result in injury to the operator or patient.

1. Lower the Recumbent/Supine Lift to the lowest position, unlock the casters, and carefully push the Patient to the bathing area, being careful to avoid uneven floors and objects in hallways.
2. At the bathing area, position the Recumbent/Supine Lift to the side of the Bathing system near the side of the tub, with the patient's feet towards the control panel.
3. Adjust the incline of the Recumbent/Supine Lift based on the residents' size and level of water in the tub.
4. Lock the casters once again on the Recumbent/Supine Lift, push the UP button on the hand control and slowly raise the patient to a height that will clear the top edge of the tub when it is in its lowest position. Always watch for objects that may interfere or obstruct the Recumbent/Supine Lift operation.



WARNING

Do not allow the patient to interfere with the operation of the Recumbent/Supine Lift while operating the equipment. Do not allow garments, towels, and other foreign objects to interfere with its operation. Ensure the patient is belted properly at all times with all limbs kept inside the Stretcher area near their body. Failure to take these precautions could result in injury to the operator or patient.

5. Once the Bathing System is at the correct height, if adjustable, unlock the transfer casters and carefully push the Recumbent/Supine Lift towards the tub until the stretcher is located over the Bathing System. Ensure the legs of the Recumbent/Supine Lift clear the tub legs underneath the tub if applicable while pushing the unit in.
6. Lock the casters once again and you are now ready to lower the Patient into the Bathing System by pressing the "DOWN" button, or raise the Bathing System up, if applicable, to the Recumbent/Supine Lift, whichever is safest for the resident and the operator.

Transferring the Patient into the Vanair Bath

⚠ WARNING

When using a Height Adjustable Bathing System in conjunction with the Recumbent/Supine Lift, caution must be used when raising and lowering either unit together. Do not raise or lower the Height Adjustable System without consideration of raising and lowering the Stretcher. Failure to take these precautions could result in injury to the operator or Patient. Failure to take these precautions could also result in damage to either the Vanair tub and/or the Recumbent/Supine Lift.

1. Before raising the Bathing System, if applicable, ensure that all limbs are inside the Lift so that the limbs don't get pinched between the tub rim and the bottom of the Lift frame. If height adjustable Bathing System, always be aware of the height of the Recumbent/Supine Lift to ensure they do not hit each other or that objects get caught between the tub rim and the bottom of the Lift frame.
2. Lower the Recumbent/Supine Lift into the tub until the resident is submerged to a safe and correct depth into the water. ENSURE THAT THE RESIDENT'S HEAD REMAINS ABOVE WATER AT ALL TIMES. Always be aware of the resident's limbs and anything that may obstruct the lowering of the Recumbent/Supine Lift and/or raising of the Bathing System.



Transferring from Bath to Bed

WARNING

When using a Height Adjustable Bathing System in conjunction with the Recumbent/Supine Lift, caution must be used when raising and lowering either unit together. Do not raise or lower the Bathing System without consideration of the Recumbent/Supine Lift's position. Ensure that all limbs are inside the Lift area near the body and all objects are clear. Failure to take these precautions could result in injury to the resident or operator. Failure to take these precautions could also result in damage to either the Bathing System and/or the Recumbent/Supine Lift.

1. If using a Height Adjustable System, lower it to its lowest position. Ensure the Patient's feet clear the control panel area.
2. If the bottom of the Recumbent/Supine Lift will not clear the rail of the Bathing System, raise or adjust the height of the Recumbent/Supine Lift to clear the rail.
3. Rinse the resident's body with the shower sprayer.
4. Pat the resident dry with a soft towel. No rubbing is necessary.
5. Use the towel to dry and clean the underside of the chair. This will prevent water from dripping on the floor and residue buildup under the seat.
6. Before you move the resident out of the tub, make sure the lower extremities have been towel dried so the bathroom floor stays dry. Unlock the casters of the Recumbent/Supine Lift and slowly move it away from the Bathing System then lock the casters again.

WARNING

Do not overfill, splash, or spill water on the floor. Water on the floor could result in injury to the operator or resident.

WARNING

Make sure the Recumbent/Supine Lift bottom will clear the tub rim height by at least two inches before moving the patient out of the tub. Failure to do so could result in damage to the Bathing System and injury to the operator or resident. Push the "EMERGENCY STOP BUTTON" at any time to stop the Recumbent/Supine Lift from raising and/or lowering.

Note. This is an excellent time to give the resident a pedicure, if needed. The resident is at a convenient working level and the nails are now soft and easily trimmed and cleaned.

7. Unlock the casters and position the Recumbent/Supine Lift in a clear area then push the "DOWN" Button until it is at its lowest position.
8. Ensure all belts are properly secured. You may now push the patient back to the bed being careful to avoid uneven floors and objects in hallways.
9. Position the Recumbent/Supine Lift beside the bed and lock the casters once again.

Transferring from Bath to Bed (continued)

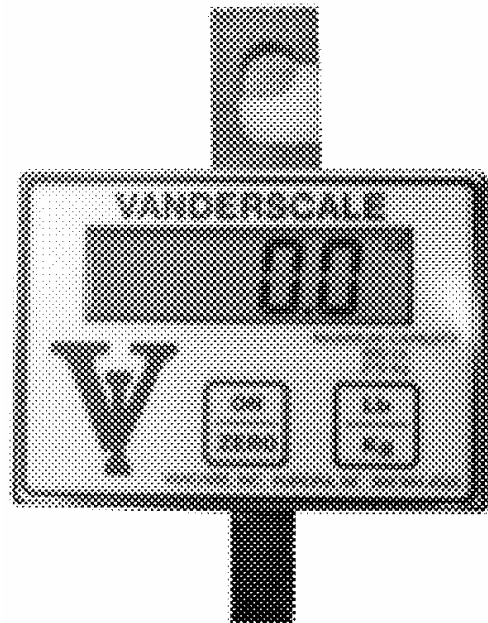
10. Release all belts from the patient and transfer the patient to the bed using proper nursing techniques.
11. With the Recumbent/Supine Lift now empty, unlock the casters and return it to the bathing area for cleaning.
12. Raise the Recumbent/Supine Lift to clear the edge of the Bathing System. Move the Recumbent/Supine Lift over the Bathing System, and then lower into the Bathing System for cleaning and disinfecting.

Weighing Procedure

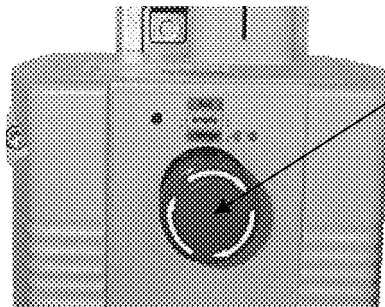
1. Before seating the resident in the chair, ensure all the pads and belts are on the chair.
2. Press the "ON/ZERO" button once to turn on. Press again to zero.
3. The scale weighs in increments of $\frac{1}{2}$ Lb. accuracy ± 1 Lb.
4. The indicator should show "0". This should only need to be done once a day or when with seat empty indicates anything other than zero.
5. If indicator reads anything other than zero, start over and zero again. If it does not read "0" the scale may need to be recalibrated. (Note) Negative weights are indicated by the weight flashing on and off.
6. Pressing the VANCARE Patient Care Logo is the recall button, recalls the last weight, which was "Held".
7. Press the "Lb./Kg." button and hold to convert to Lb. or Kg.
8. Once the patient is in the seat, ensure that the arms, legs, or feet are not touching anything. This would give an inaccurate reading.
9. After the resident is stabilized, the scale indicates "Hold". A reading of the weight may now be taken.
10. The next resident may then be weighed providing the seat and belts are still in place.
11. The battery for the Scale read out is located in the bottom of the read out. There are four AA batteries.

Refer to the enclosed Technical Manual (page 16) provided by Magnetic for the following:

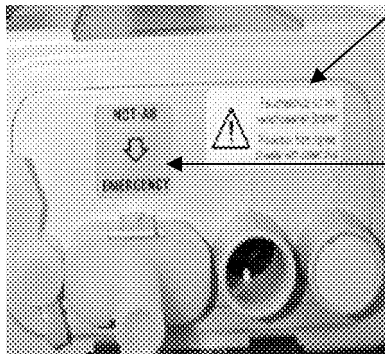
- a. For general arrangement
- b. Safety Compliance
- c. Installation of the accumulator pack or charging unit
- d. Connecting Hand control, connecting the motors, cleaning, maintenance, Technical Data, and troubleshooting.



Operating Controls



Control Unit Transfer
Emergency Stop Button.
Stops operation at any time.

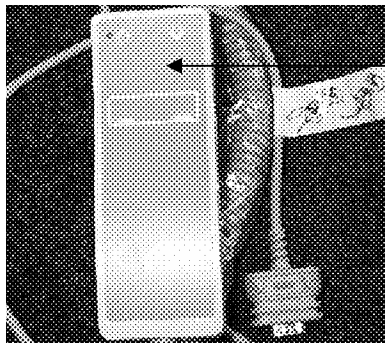


Wall Charging Unit
Mounts on the wall for easy charging of batteries.

Control Unit (bottom view)
Pillar Actuator, Battery, and Hand Control plugs in here.

Emergency Lowering Button
If lift were to fail in up position, may lower by depressing this button.

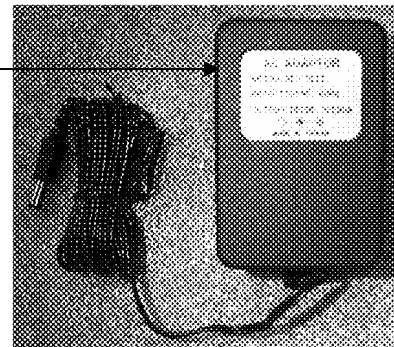
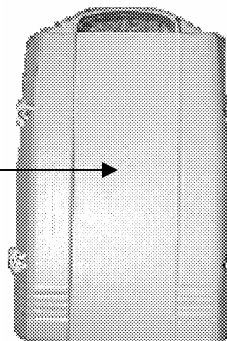
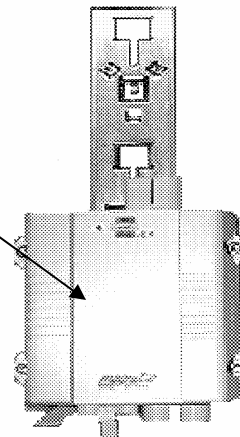
Transfer Battery (2 each)
Sets into top of Control Unit.
Must be charged daily on wall charger.



Hand Control
Used to raise or lower system.
Plugs into Control Unit.

AC Adapter
For wall charging unit, however can be used on the Control Unit of the Transfer.

Caution
The Transfer becomes less mobile when AC adapter is plugged into the Control Unit instead of Wall Charger.



⚠ WARNING

If any part of the Transfer system is not functioning properly, cease all transferring activities until the problem is corrected by maintenance. The system must be maintained on a scheduled basis to ensure it is functioning properly. Failure to heed these precautions could result in injury to the operator or resident.

General Precautions and Maintenance of the VANCARE Recumbent/Supine Lift.

System Cleaning (After Every Bath)

Clean and disinfect the Recumbent/Supine Lift after every bath with a Cleaner/Disinfectant as follows:

- Position the Recumbent/Supine Lift frame over the tub, then using a long-handled brush (available from your VANCARE distributor) to thoroughly scrub all the surfaces of the Recumbent/Supine Lift frame. Then with the solution that remains in the tub, thoroughly scrub the belts.
- Disinfect the Recumbent/Supine Lift pad by detaching it and positioning it over the tub. Use the brush to scrub its surfaces with the remaining solution: Allow for proper disinfectant contact time (Usually 10 minutes or as recommended by the disinfectant's manufacturer.) and rinse the pad. Replace the pad on the Recumbent/Supine Lift after it has been rinsed.
- Thoroughly rinse all cleaned components of the Recumbent/Supine Lift.

Note. Central Solutions Cleaner/Disinfectant is a special non-abrasive cleaning and disinfecting solution that will not harm the tub's fiberglass surface. Central Solutions Cleaner/Disinfectant is the cleaning solution designed and recommended for use with your Bathing System.



WARNING

For proper use and your safety, please follow the directions set forth by the manufacturer of the disinfectant.

System Cleaning (After Every Bath)

Clean and disinfect the Transfer after every bath with Central Solutions Cleaner/Disinfectant as follows:

1. Drain the water from the tub.
 2. Press the Shower Button and rinse the inside surfaces with the shower sprayer.
 3. Close the drain.
- Clean and disinfect the Transfer after every bath with Central Solutions Cleaner/Disinfectant as follows:
 - **Note:** Central Solutions Cleaner/Disinfectant is a special non-abrasive cleaning and disinfecting solution that will not harm the tub's fiberglass surface. Central Solutions Cleaner/Disinfectant is the only cleaning solution designed and recommended for use with your Vanair Tub.
 - Position the Transfer seat chair frame over the tub. Then using a long-handled brush (available from your VANCARE distributor) thoroughly scrub all the surfaces of the Transfer seat frame. Then with the solution that remains in the foot well of the tub; thoroughly scrub Lift seat, backrest, and belts.
 - Disinfect the seat pad by detaching it and positioning it over the tub. Use the brush to scrub its surfaces with the remaining solution. Allow for proper disinfectant contact time (Usually 10 minutes or as recommended by the disinfectant's manufacturer) and rinse the seat. Replace the seat and lock on the VANCARE Transfer
 - Thoroughly rinse all cleaned components of the Transfer System Chair.

CAUTION

Some cleaners, disinfectants, and floor strippers contain ingredients that are corrosive or abrasive. These solutions or compounds may contain chlorine, acid, basic ingredients or abrasives. DO NOT allow such solutions or compounds to come in contact with your VANCARE equipment. Failure to heed this caution could result in damage to the equipment and void the warranty.

Note: Central Solutions Cleaner/Disinfectant is a special non-abrasive cleaning and disinfecting solution that will not harm the tub's fiberglass surface. Central Solutions Disinfectant is a great cleaning solution designed and recommended for use with your Bathing System.



WARNING

For proper use and your safety, please follow the directions set forth by the manufacturer of the disinfectant.

Daily Safety Checklist

Check the following items each day before using your VANCARE Transfer System.

Perform the following safety checks for the VANCARE Transfer:

1. Recumbent/Supine Lift Belts – Check the condition of the belt(s) for signs of excessive wear.
2. Recumbent/Supine Lift Position Latch – Check the latch on the Recumbent/Supine frame. Ensure it is operating properly. The latch should hold the frame at all inclines in place and should not come loose without pressing the latch release handle.
3. Check all nuts and bolts for tightness. Make sure there are no missing nuts or bolts.

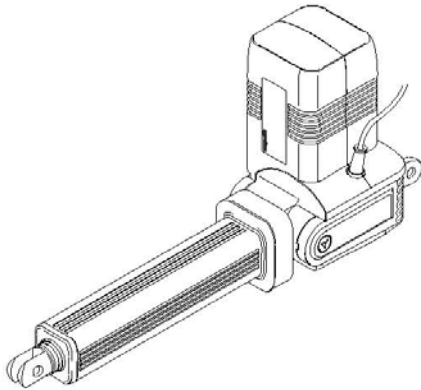
WARNING

If during the safety checks you find parts are missing, excessively worn, do not function properly, or do not meet the recommended safe operating levels, do not operate the equipment until the maintenance department has taken the appropriate corrective action.



Your VANCARE Distributor and his personnel are trained to provide in-service instruction and maintenance on your VANCARE Recumbent/Supine Lift Transfer System. If you have any questions about the operation or maintenance of your System, please contact your VANCARE Distributor.

For your nearest VANCARE distributor,
contact VANCARE, Inc. at
1-800-694-4525



Technical instructions

Matrix MAX1 / MAX3 Linear drive

1 General

1.1 Using the Technical Instructions

The Technical Instructions are intended for designers or specialists who use the MATRIX linear actuator in their products, and for engineers who work with the actuator. The Technical Instructions contain all relevant information on this Magnetic product.

We reserve the right to make changes which are in the interest of technical progress.

Please read the Technical Instructions carefully and, above all, pay careful attention to the Safety Instructions.

The Technical Instructions, Datasheet and Datalabel should be used for drawing up the User Manual for the end product.

1.2 Explanation of symbols

The symbols opposite are used in the Technical Instructions to highlight possible dangers and important notes.

1.3 Correct use

Linear actuators of type MATRIX must only be used for lifting purposes. The actuators must only be loaded centrically with push and pull forces. No other usage is permitted.

Conversions or modifications to linear actuators or the electrical installation are not permitted.

Only original spare parts and accessories from Magnetic may be used. The actuator is intended for use with a Magnetic control system. For use without a Magnetic control system, please contact Magnetic AG, Liestal.

The technical data specified on the type plate must be observed at all times. The standards specified on the cover sheet apply.

The unit is only suitable for indoor use and must not be subjected to the elements.

1.4 Ambient conditions

Operation:

- ▶ Temperature 0°C to 40°C
- ▶ Humidity max. 85%

Storage / transport:

- ▶ Temperature -20 °C to 40°C
- ▶ Humidity max. 95%

Operating mode:

- ▶ Intermittent 10%; 1 min ON / 9 min OFF

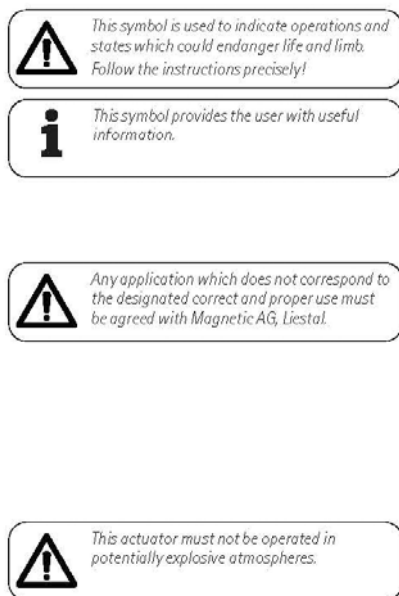
The actuator has been designed for intermittent operation. If a higher duty cycle is used, contact Magnetic AG, Liestal.

Restrictions when used with built-in current cutoff (MAX11 / MAX31)

When there is no thermo-switch the running time of $\frac{1}{5}$ minutes must be respected, if the drive is being operated with external control. Otherwise the internal temperature can rise too steeply and among other things lead to the failure of the relay.

In the case of integral power cut-off, the voltage applied across the drive must not fall below 24 V. If it falls below 24 V there is no longer a guarantee that the relay contacts are cleanly closed.

PWM (pulse width modulation) regulators may not be used with drives having integral power cut-off. In the case of PWM regulators it is normally possible to do without integral power cut-off, since the PWM regulator possesses a power cut-off function.



2 Function

2.1 Function

The 24 V DC motor with worm gear which is integrated into the housing acts on a trapezoidal gliding spindle or ball screw system. The characteristics of the permanent magnet motor means that the speed is load-dependent. The rotational movement is converted into a linear movement and is effected as a push or pull movement using a pushing tube. Matrix actuators employ push / pull technology. The self-locking function is ensured by means of the built-in brake. All actuators are fitted with a safety nut to prevent overload.

The supply cable is integrated securely in the motor case.

2.2 Construction

The actuator consists of a motor unit (including gears) and a linear unit, which are linked to each other using a bayonet lock.

The motor unit is enclosed within a twin-shell plastic case and sealed. The plastic case cannot be opened.

The entire linear unit, consisting of a pushing tube, motor housing, threaded spindle and nut, is fashioned as a separate component from the actuator motor. The linear unit is linked to the motor via a rectangular turn-lock ring, which is fashioned as a bayonet lock.

The actuator has no internal terminal-position switches. It is protected from thermal and electrical overload by a connected Magnetic control unit.

Control unit

The DC motor is fed using an external Magnetic control unit or a master actuator. These components also determine the running direction of the actuator, depending on the polarity of the DC current.

Rapid adjustment (optional)

The rapid adjustment function used for "emergency lowering", e.g. of the head or foot of a bed (e.g. when resuscitating patients). The actuator is optionally available equipped with the rapid adjustment function.

Emergency lowering (optional)

It is possible to equip the actuator with an optional emergency lowering function, for lifting applications. This makes it possible, e.g. in the event of power failure or actuator malfunctions, to lower the lifter manually.



The actuator should be checked on delivery for cracks on the housing. If cracks appear on the housing as a result of transportation, the actuator must be returned to the Magnetic Service Department for repair.



Risk of personal injury!
The pushing tube with the fork head can turn with considerable force at the terminal stop. While the motor is running, no body parts (fingers) should be allowed near the pushing tube's fork head.



The diameter of the fastening pins should be selected in accordance with the diameter of the fork head bores (see Section 6, Technical Data), or thinner pins should be used in accordance with the plastic insert bearings supplied. A small amount of play must be possible.



Forces acting on the pushing tube must always act centrally on the linear unit. Lateral forces damage the actuator and can therefore lead to a risk of personal injury.



The actuator must not travel to a fixed limit stop during use. This may damage the actuator!



The maximum load is specified in the Datasheet.

Fig 1

3 Installation and startup

3.1 Scope of delivery

The actuator consists of:

- ▶ The complete actuator unit, including motor and linear units
- ▶ Plastic insert bearings for the fork heads
- ▶ Cable with jack plug

Options

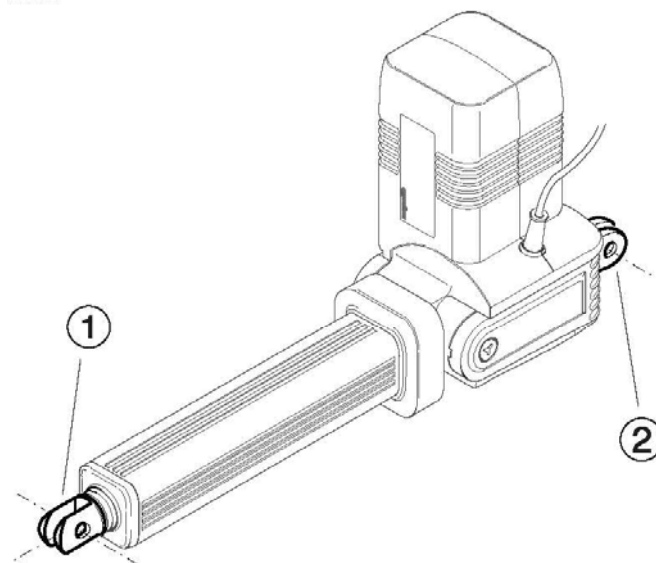
- ▶ Rapid adjustment function
- ▶ Emergency lowering function
- ▶ Electrical anti-pinching protection
- ▶ Mechanical anti-pinching protection
- ▶ Pulse generator
- ▶ Integral current cut-off

Accessories

- ▶ Control devices
- ▶ Control units

3.2 Montage

You should only install the linear actuator using both fork heads (1) and (2). When fixing the actuator, the mounting links of the forkhead may not be exposed to lateral forces.



The pushing tube is not secured against rotation. The device which is to be coupled to the pushing tube (i.e. the device to be moved) must take on the role of rotor suppressor. Installation is performed using installation pins, which must be secured in position (for dimensions, refer to Technical Data).

The operating force must always act on the pushing tube centrally. Forces which act laterally or forces which exert a torque on the linear unit can damage the actuator.

It should therefore be ensured that the bayonet lock on the linear unit is secured in position right at the limit stop with the plastic cover pulled over it.



The power cable must be also be strain-relieved on the object on which the actuator is installed.

All lines must be secured so that no forces act on the plugs. Plugs which are poorly aligned may become loose and damage the actuator.

The sealing rings of the connecting plug must be checked for damage each time they are connected, and should be greased lightly with Klübersynth VR 69-252, order no. 52 1023.

Damaged seals should be replaced by Magnetic. The use of other gliding agents can lead to the plastic being damaged.

Electric cables should not be exposed to the risk of pinching, or to bending or tensile loads.

Fig 2



Direct connection to a voltage supply is not permitted, since this can cause damage to the actuator.



The jack plug must be plugged right into the opening and be locked in position with the bayonet lock.

The special Magnetic key № 140375 can be used for locking.

Fig 3

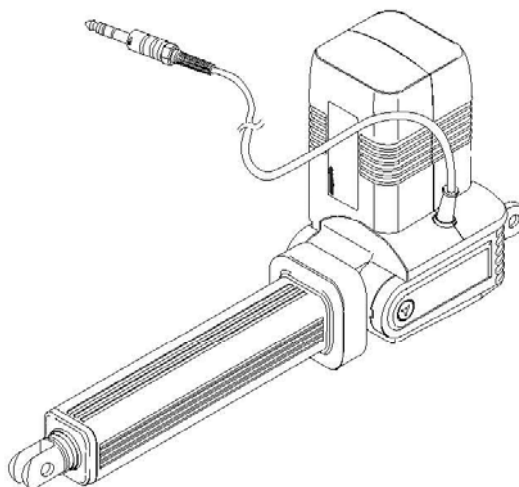


Danger - risk of injury!

When the actuator is being activated, ensure that physical objects or parts of the body can not become trapped.

If necessary, a mechanical protection device should be installed, depending on where the device is being used.

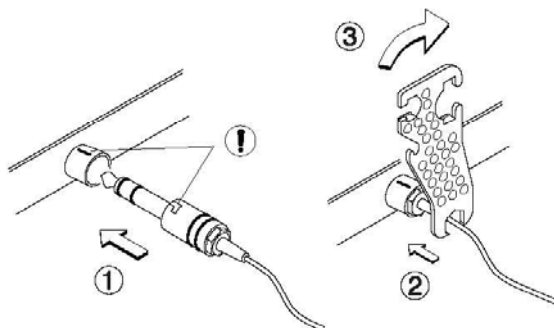
3.3 Electrical connection



The supply voltage and control is connected via the jack plug to a Magnetic control unit or a master actuator.

Connected load: 24 V DC, 6 A; see type plate

The power cable, when plugged into the socket, is strain-relieved and sealed. The jack plug has a bayonet lock which must be fitted correctly into the connection socket and locked (Fig. 3). To lock the jack plug, use Magnetic Special Key No. 140375.



3.4 Startup

The actuator is ready for operation once all mechanical and electrical installation work has been completed correctly.

The actuator is switched by the control unit (depending on its design) and the control element connected to it.



Important!
The load specified on the type plate must not be exceeded. Otherwise the actuator may be damaged.





Risk of pinching / injury!
The rapid adjustment function should only be used in emergencies, or to test that it is working properly.
When retracted, the actuator must lie against a fixed limit stop (e.g. bed frame), since otherwise the actuator may be damaged by a rapid-lowering action.
The part of the bed which is to be lowered must always be held in position when the clamping lever is opened. Depending on the bed design and load, the head or foot can lower quickly.

4 Operation

4.1 Controlling an actuator

Actuators are controlled via a suitable Magnetic control unit or a master actuator (e.g. type Matrix MAX6).

Use directional buttons  and  on the control device to directly control the actuator.

- ▶ button  The actuator extends.
- ▶ button  The actuator retracts.

The actuator travels for as long as the current feed lasts, or until the actuator reaches a terminal position.

Further information can be found in the Technical Instructions for the relevant control unit or actuator.

4.2 Rapid adjustment (optional)

The rapid adjustment function allows the head or foot of a bed to be lowered manually (e.g. when resuscitating a patient).

When installing an actuator with rapid adjustment function, a warning notice in accordance with EN 60601-1, Section 6.3c and 6.4 must be attached to the end product (insofar as the end application is subject to this standard).

Procedure:

- ▶ Turn the red button by 90° (see Fig.4).
When doing this, the head or foot section you want to lower should be held fixed, so as to prevent unintentional lowering under load.
- ▶ The pushing tube can now be retracted manually, by e.g. pushing the head or foot of the bed downwards.
- ▶ After successful rapid lowering, the button must be turned again by 90° and locked in position. In this position, rapid adjustment is no longer possible.

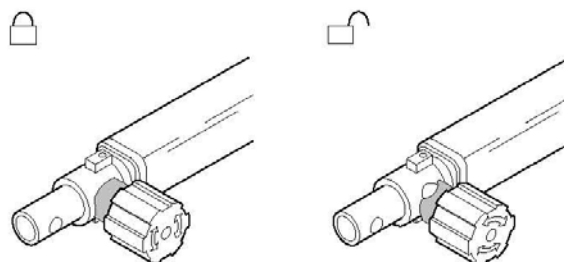


Fig 4

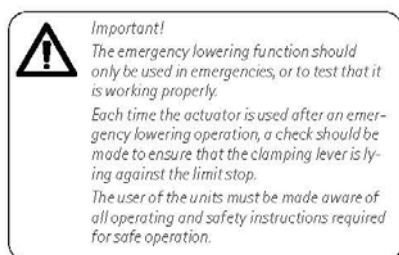
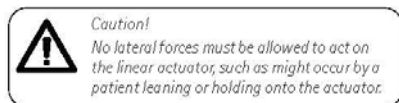


Fig. 5

4.3 Emergency lowering (optional)

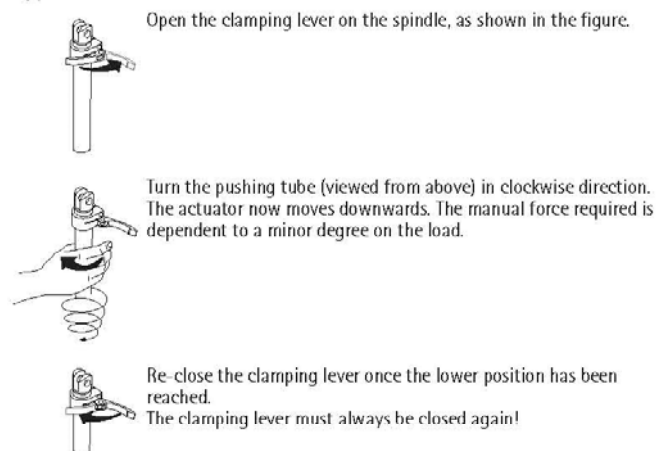
In lifting applications, it can be desirable in special cases (e.g. power failure or actuator malfunctions) to lower the linear actuator manually by turning. To facilitate this, the optional emergency lowering function is available.

Emergency lowering has been tested in accordance with EN ISO 10535.

Installation and startup

- ▶ An actuator with emergency lowering function may only be installed in patient lifters.
- ▶ When assembling the patient lifter, care must be taken to ensure that the distance between the emergency lowering mechanism and the outer tube is at least 25 mm. Anti-pinching protection!
- ▶ The operating plate for emergency lowering "Emergency/Notfall" must be positioned on the lifter or actuator so that it is clearly visible. The surface to be labelled must be smooth, dry, and free of dust and grease.

Application



Care and maintenance

- ▶ The emergency lowering mechanism must not be treated with oil, grease or any other lubricating substance, since this can lead to the emergency lowering mechanism becoming dangerously easy to move!
- ▶ The screws in the clamping lever must not be tightened or loosened. If the emergency lowering mechanism should malfunction, the device must be reset by the manufacturer.
- ▶ Only propyl alcohol may be used to disinfect or clean the emergency lowering mechanism. Other cleaning agents can adversely affect the function of the emergency lowering mechanism. Before using any other cleaning agents, contact the manufacturer.
- ▶ The emergency lowering function must be checked to ensure that it is working properly twice yearly. If excessive force is required for the rotational movement, or the unit runs very freely under nominal load (i.e. independent downwards movement of the actuator after opening the clamping lever), the actuator must be taken out of service and it must be checked by the manufacturer.



Important!

A linear actuator must not be opened, as this will damage it.



Important!

*No high-pressure cleaners should be used for cleaning.
Otherwise the actuator may be damaged.*

5 Care and maintenance

5.1 Maintenance

The linear actuator requires no maintenance during its lifetime.

In the event of malfunctions, the actuator must be removed and overhauled by the manufacturer. It must not be opened and repaired, since this will damage the case and the degree of protection / protection class can no longer be guaranteed.

The actuator should be checked regularly for cracks on the housing. If cracks appear on the housing as a result of external influences, the actuator must be returned to the Magnetic Service Department for repair.

5.2 Care

The actuators are assembled with degree of protection IP 66 (see type plate). They are only tested statically and must not be exposed to jet water during operation. The degree of protection only applies if all plugs are installed correctly. If plug connections are open, liquid can penetrate into the actuator during cleaning and damage it.

The degree of protection corresponds to the current requirements for the ability to withstand automatic bed washing installations, in accordance with IEC Standard 601-2-38.

The washing water, including the chemical additives, must be pH-neutral. Washing water which is too acidic or too alkaline can damage metal and plastic parts.

For manual disinfection, only isopropyl alcohol should be used.

5.3 Warranty

Assuming that the operating conditions are complied with and units exhibit no mechanical or electrical damage resulting from incorrect handling, a warranty of 12 months from the date of delivery will apply for all mechanical and electrical components.

5.4 Disposal

The control unit components and actuators may be returned to Magnetic AG, Liestal, for disposal.

5.5 Liability

In every case, the owner or operator of the unit shall be liable for its function if it has been incorrectly installed, maintained or repaired by persons who are not employed by the Magnetic Service Department or if the unit has not been handled in accordance with the specified application.

Magnetic Aktiengesellschaft shall not be liable for any damage resulting from failure to observe these instructions. These instructions shall not be regarded as an extension of the warranty and liability terms set out in the Conditions of Sale and Supply applied by Magnetic Aktiengesellschaft.

6 Technical data

Technical data - see type plate

Dimensions Matrix MAX1...

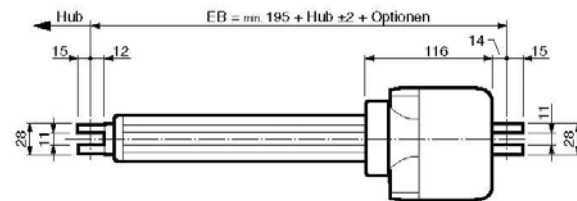
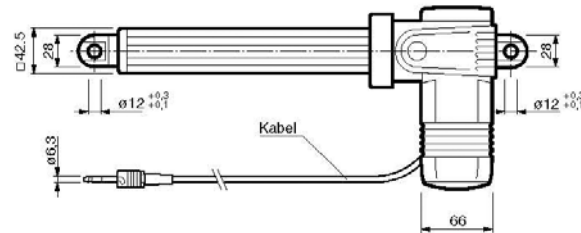
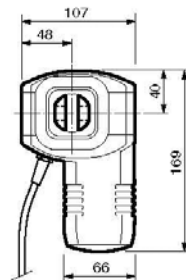


Fig. 6

Dimensions Matrix MAX3...

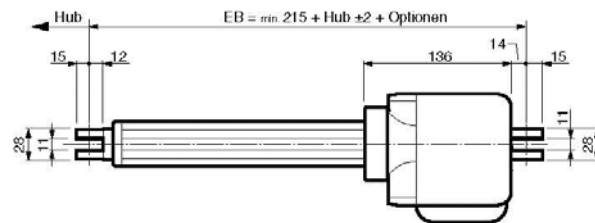
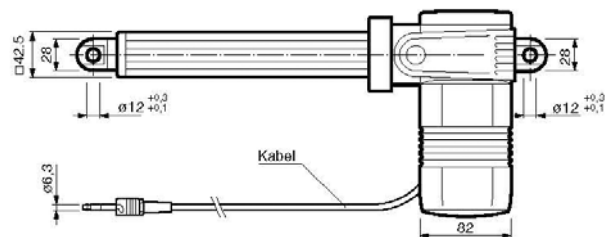
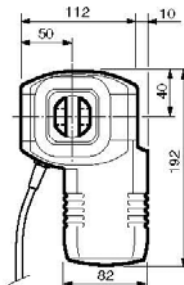


Fig. 7

The manufacturer reserves the right to modify technical data, without any special notification, to keep pace with advances in technology. Magnetic AG, Liestal, will be pleased to provide information about current specifications, possible changes or extensions.



Important!

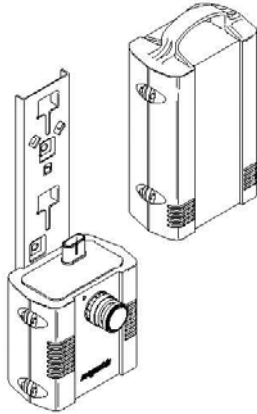
Any work on the units and connections may only be undertaken when the mains plug has been disconnected.

7 Troubleshooting and fault elimination

Fault	Cause	Measure to be taken
Actuator not functioning	No supply voltage present	Check the supply voltage
	Poor connector contact	Plug in the connecting plug correctly or check the terminal connections
		Plug in the control device plug correctly
	Motor cable defective	Return the actuator to the Magnetic Service Department
	Control device / control element defective	Exchange the control device / control element
	Internal fuse defective	Return the actuator to the Magnetic Service Department
	Motor defective	Return the actuator to the Magnetic Service Department
Markedly reduced speed	Motor, gears or nuts defective	Take the actuator out of service immediately and return to the Magnetic Service Department
Very loud running noise	Motor, gears or nuts defective	Take the actuator out of service immediately and return to the Magnetic Service Department
Play in the guidance system	Gliding elements worn	Return the actuator to the Magnetic Service Department

Observe the instructions in the relevant customer documentation.

If you are unable to eliminate a fault, contact Magnetic AG, Liestal.



Technical Instructions

MOBILETTE MCU

Mobile control unit
for DC linear actuators

1 General

1.1 Using the Technical Instructions

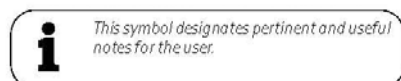
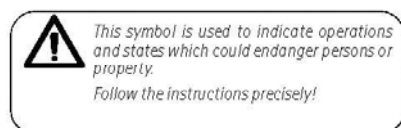
The Technical Instructions are intended for designers who use the Mobilette in their products, and for engineers who work with the Mobilette. The Technical Instructions contain all relevant information on this Magnetic product. We reserve the right to make changes which are in the interest of technical progress.

Please read the Technical Instructions carefully and, above all, pay careful attention to the Safety Instructions.

The Technical Instructions can be used for drawing up the User Manual for the end product.

1.2 Explanation of symbols

The symbols opposite are used in the Technical Instructions to highlight possible dangers and important notes.



2 Function

The MOBILETTE control unit (MCU) is used for the mains-independent control of 24V DC actuators. A distinction is made between two versions:

The MCU1 is connected to the mains voltage using a mains adapter. Protection class IPx4 applies to the MCU1.

The MCU8 (MCU4) is connected directly to the 230V (120V) mains supply, which is transformed to 24 V DC via an integrated transformer. This component is subject to protection class IPx3.

This battery pack consists of 2 batteries connected in series, each of 12 V 4.5 Ah, resulting in a total of 24 V. The charged battery pack can be used to power the control unit and thus the actuator. Operation is via a connected control device, e.g. a handswitch.

An integrated current cut-off protects the actuator from overloading.

An integrated „EMERGENCY STOP“ function can be used to cut off the power supply to the actuator, so that it immediately stops moving.

2.1 Correct usage

The Mobilette has been designed for mobile applications in the medical field, particularly for patient lifts. The Mobilette is used to control the following Magnetic actuators

- § Matrix MAX10 / MAX30
- § Telemag THG / TLG

Other applications must be approved by Magnetic AG, Liestal.

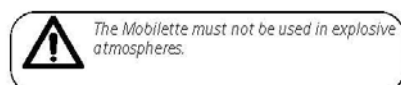
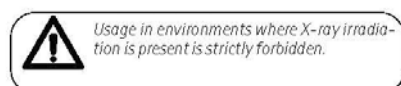
2.2 Ambient conditions

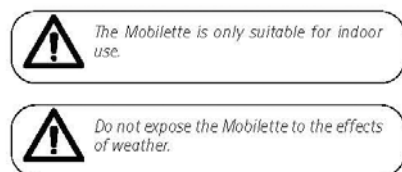
Operation:

- Temperature 10°C to 40°C
- Humidity max. 85%

Storage / transport:

- Temperature -20°C to 60°C
- Humidity max. 95%





3 Installation and startup

3.1 Scope of delivery

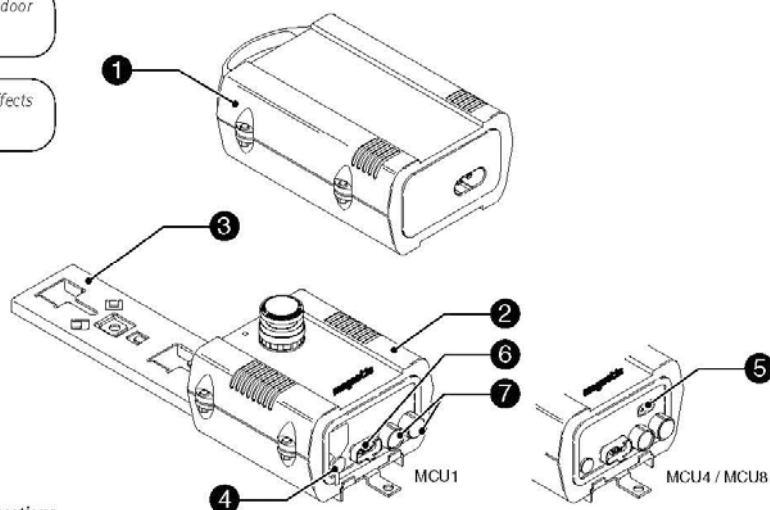


Fig. 1 – Scope of delivery and connections

The Mobilette consists of:

- ZBA battery unit
- MCU control unit (installed on system carrier ?)

Plug-in connections are marked on the control unit for:

- Mains adapter with closure flap (MCU1 only)
- Mains cable (MCU4 / MCU8 only)
- Control device
- 1 actuator (2nd actuator optional)

Accessories

- ZKA mains cable (MCU4 / MCU8 only)
- ZDV mains adapter (MCU1 only)
- Wall charging station
- EHA handswitch
- EFE footswitch
- IHA infrared handswitch
- SPP locking device
- Distribution box

Options

- Connection for second actuator
- Electrical emergency lowering (for channel 1 only)
- Individual power cut-off for both channels



Ensure that the control unit is free of mechanical tension and does not vibrate.

3.2 Installing the control unit

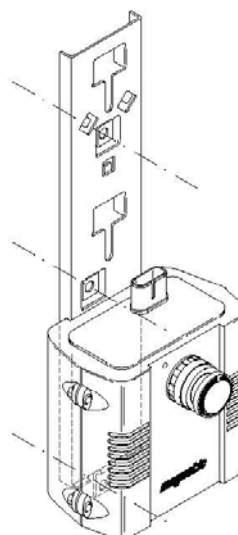


Fig.2 – Mounting the control unit

Mount the control unit in the 3 holes provided on the system carrier (Fig. 2).

The MOBILETTE MCU1 can be mounted in the following positions (Fig. 3):

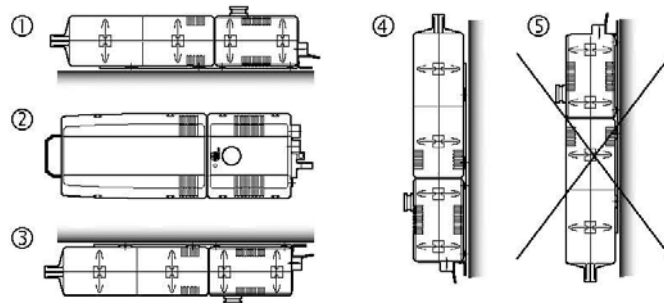


Fig.3 – Positions MCU1

- Lying horizontally
- Standing horizontally
- Hanging horizontally
- Vertically (battery pack above the control unit)

The MOBILETTE MCU4 and MCU8 (protection class IPx3) may only be mounted vertically with the battery pack above the control unit (Fig. 3, Pos. ④). This prevents the possibility of fluid entering the system.

A vertical, hanging position (⑤) with the battery pack below the control unit is not possible, since the battery pack may fall out.



A ventilation hole is provided in the battery pack to allow gases to escape from the battery. The ventilation hole must not be damaged, removed or painted over.

Allowing liquid to penetrate the units and blocking the ventilation is dangerous!

3.3 Inserting the battery pack

Insert the battery pack into the mounted control unit as described in Fig. 4.

Ensure that the cams ① are pushed right into the guides ②. A locking spring on the rear of the system carrier fixes the battery pack to the control unit.

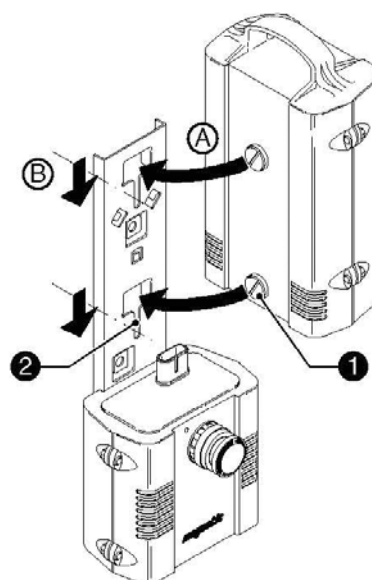


Fig. 4 – Inserting the battery pack

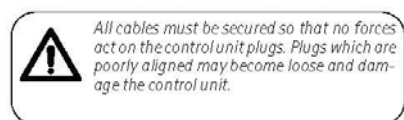
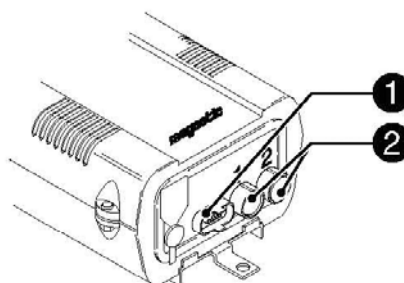


Fig. 5 – Connections



Connecting the control device

Insert the D-SUB plug of the control device into the corresponding socket ❶ on the control unit. (Fig. 5)

The cables are strain-relieved and sealed by means of the cast cams when plugged into the socket. The cams engage in the retaining clips.

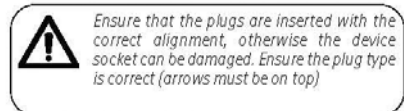
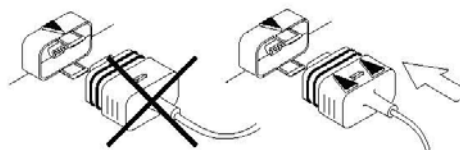


Fig. 6 – Inserting the control device plug



The control device used depends on the requirements of the system manufacturer.



Lightly lubricate the plug sealing rings with Klübersynth VR-252, Magnetic order No. R50014.

The use of other lubricants can damage sealing rings and the plastic housing.



Ensure that the groove on the plug is aligned with the mark on the housing.

Otherwise, the plug cannot be connected properly.

Fig. 7 - Inserting the actuator plug



Batteries must only be charged in well-ventilated rooms. The gases resulting from the charging process are dangerous. Do not charge the batteries in damp environments!



If the charging cycle lasts more than 20 hours, the battery or control unit is faulty. Remove the mains adapter from the socket. (See also 5.1 Maintenance)



During charging, any lifter controlled by the MOBILETTE must not be used.

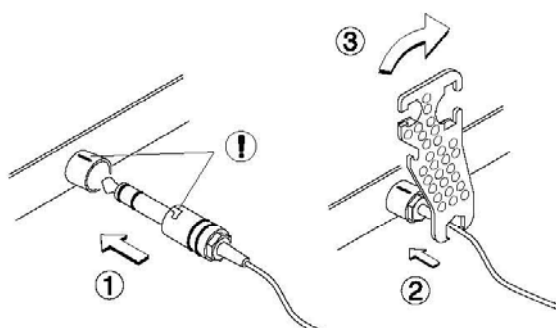
Wait until the charging process is over before using the MOBILETTE.

Fig. 8 - LED for battery charge status

Connecting the actuator(s)

Insert the actuator plug into the corresponding socket ② on the control unit (Fig. 5). Then proceed as follows:

- ① Insert the plug (the sealing rings must not be visible)
Ensure that the groove on the plug is aligned with the mark on the control unit.
- ② Use the special plug disassembling tool No. 140375 to turn the plug approx. 30° to the right up against the stop in order to lock it in position.



Repeat steps ① to ② if you wish to connect an (optional) second actuator.

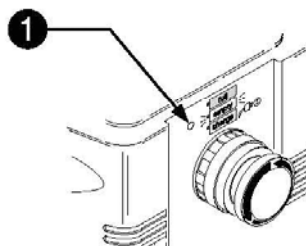
Otherwise, the actuator output which is not used is closed with a watertight blanking plug at the factory. This plug must not be removed.

3.5 Startup

Charging the battery

The battery charging process is started when the mains adapter / mains cable is plugged in, or the battery pack is fitted in place while the mains adapter / mains cable is plugged in.

An LED (Fig. 8, ①) indicates the battery's charge state



LED yellow	Batteries are being charged, mains voltage connected.
LED green	Batteries are fully charged, mains voltage connected.
LED unlit	Mains voltage not connected.

Current consumption at full load

During commissioning, measure the actuator's maximum current consumption at full load. It must not exceed the value specified on the type plate of the linear actuator. Higher current consumption means that the linear actuator is overloaded and may be damaged.

An integrated overcurrent cut-off automatically deactivates the actuator if the current consumption is too great.



Only use the Mobilette with charged batteries. Operation with empty batteries is not possible (not even if you connect the MOBILETTE to the mains).

4 Instructions for use

4.1 Controlling an actuator

The actuator is controlled directly using buttons \uparrow and \downarrow on the control device:

- Button \uparrow The actuator extends.
- Button \downarrow The actuator retracts.

When the button is pressed, the LED on the control device lights up green.

The battery status can be checked as follows during any motor movement via an LED on the control unit (Fig. 8, ①):

- | | |
|--------------------|--|
| LED unlit | Batteries are ready for operation. |
| LED flashes yellow | Batteries must be charged, since they are currently only charged to around 20% |
| A beep is heard | The battery capacity is less than 20%, but there is still sufficient capacity for at least a double stroke. The batteries must be charged immediately, otherwise the actuator's deep-discharge protection will block further use! (See also 5.7 Troubleshooting) |

4.2 EMERGENCY STOP function

Pressing the EMERGENCY STOP button interrupts the power supply to the actuators and causes the actuator to stop immediately. The EMERGENCY OFF switch should only be used in cases of immediate danger.

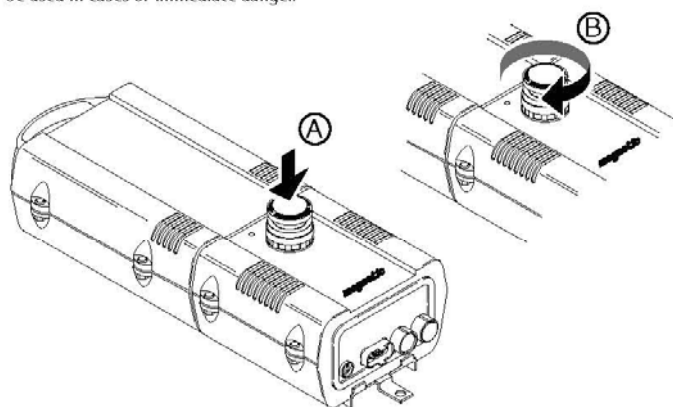


Fig. 9 – EMERGENCY OFF

Pressing the EMERGENCY STOP

- Press the red button (A)

The button engages. The actuator stops and can no longer be controlled by the control device while the "EMERGENCY STOP" button is locked in position.

Unlocking the EMERGENCY STOP

- Turn the red button in the direction of the arrow. (B)

The "EMERGENCY STOP" button is unlocked. The actuator can be controlled as before.

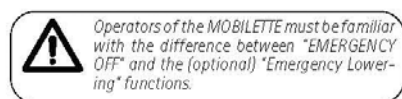
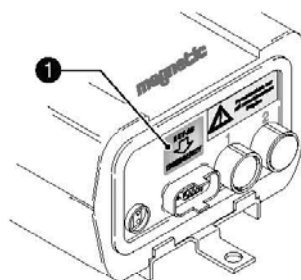


Fig. 10 – "Emergency Lowering"

4.3 "Emergency Lowering" (option)

In contrast to the EMERGENCY STOP button, the "Emergency Lowering" option is intended for when faults occur. A faulty control unit can be bypassed using the "Emergency Lowering" button. This allows electrical lowering (retraction) of the actuator.

This is only possible for actuators on channel 1.



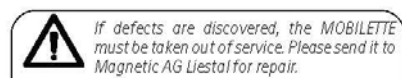
Pressing "Emergency Lowering"

- Press the yellow button (see Fig. 10, ①)

The faulty control unit must then be sent to Magnetic AG, Liestal for repair.

5 Care and maintenance

5.1 Maintenance



The control unit and the battery pack must only be opened and maintained by Magnetic Customer Services. Please contact Magnetic AG, Liestal.

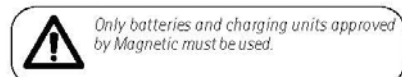
Recharge flat batteries as soon as possible. This will increase their service life. When in storage, batteries should be recharged every 6 months.

The service life of the batteries depends on the load and the charge status. It can last up to 5 years.

Replacements for damaged or worn-out batteries and faulty charging devices should be obtained from Magnetic AG, Liestal.

Changing the battery pack

Remove the battery pack by pulling the handle (with sufficient force to counteract the stop spring). The new battery pack can then be inserted as described in chapter 3.3.



5.2 Functional checks

The following functions should be checked periodically - depending on the frequency of use:

Mechanical damage

The plastic housing must be checked at least every six months for mechanical damage (cracks).

Periodically check sealing edges for damage. The sealing rings of the control device plugs and motor plugs must be checked for damage before each union and exchanged if necessary.

Power cut-off

Check the power cut-off regularly while extending the actuator to an end position. On reaching the end position, the control unit must deactivate the actuator without the button on the control device being released. When the power is cut, a click is heard in the control unit and the actuator motor stops running.

Battery display / deep-discharge protection

To check the function of the battery display, place a discharged battery pack in the Mobilette control unit and press one of the buttons on the control device.

If the battery is empty, the yellow LED will flash when a button is pressed.

Now press a button on the control device until an audible signal indicates the battery's deep-discharge protection. After this signal, it must once again be possible to retract the actuator.

If the battery is completely empty when it is placed into the control unit, the audible deep-discharge protection signal will sound.

"EMERGENCY STOP"

Test the EMERGENCY STOP function by pressing the "EMERGENCY STOP" button while an actuator is being operated. The actuator must stop immediately. (See also 4.2)

5.3 Care

Protection from water, cleaning, disinfecting

The MCU1 has been manufactured according to protection class IPx4. Protection class IPx3 applies to the MCU8 (MCU4).

Do not clean the control unit without properly connected actuators, control device, sealed mains adapter and sealed actuator input (Fig. 11, Pos. and .). The control unit would be damaged by fluid entering it.

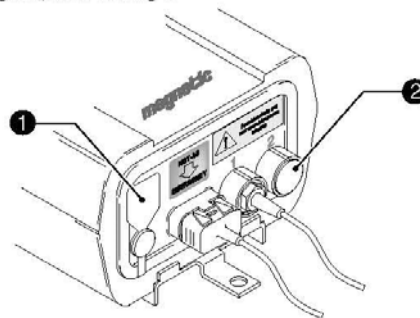


Fig. 11 – Correctly closed control unit

Maximum cleaning / drying temperature = 65°C!

If the unit becomes dirty, the housing should best be cleaned immediately in order to prevent the accretion of residues!

Use a damp cloth and water for manual cleaning. Add a little isopropyl alcohol if necessary.

5.4 Warranty

Assuming that the operating conditions are complied with and units have no mechanical damage, a warranty of 12 months from the date of delivery will apply for all mechanical and electrical components.

Batteries are not covered by this warranty.

5.5 Disposal

The control unit components and actuators may be returned to Magnetic AG, Liestal, for disposal.

Damaged or worn batteries and chargers should only be replaced by the Magnetic Service Department or trained personnel.



Special precautions are to be observed for the ML0111/87. Washing water with chemical additives must be pH neutral. Excessively acidic or alkaline washing water can permanently damage the metal and plastic components of the control unit.

Hand-held and mechanical high-pressure steam cleaners must not be used. For manual disinfection, only isopropyl alcohol should be used.



Do not dispose of your batteries in domestic waste.

Batteries must be recycled, disposed of properly or returned to Magnetic AG, Liestal.

5.6 Technical data

See brochure No. 530D 2931.

The manufacturer reserves the right to adapt technical data to reflect technical progress without prior notification. Magnetic AG, Liestal, will be pleased to provide information about current specifications, possible changes or extensions.

5.7 Liability

In every case, the owner or operator of the unit shall be liable for its function if the unit has been incorrectly installed, maintained or repaired by persons who are not employed by the Magnetic Service Department or if the unit has not been handled in accordance with its specified application.

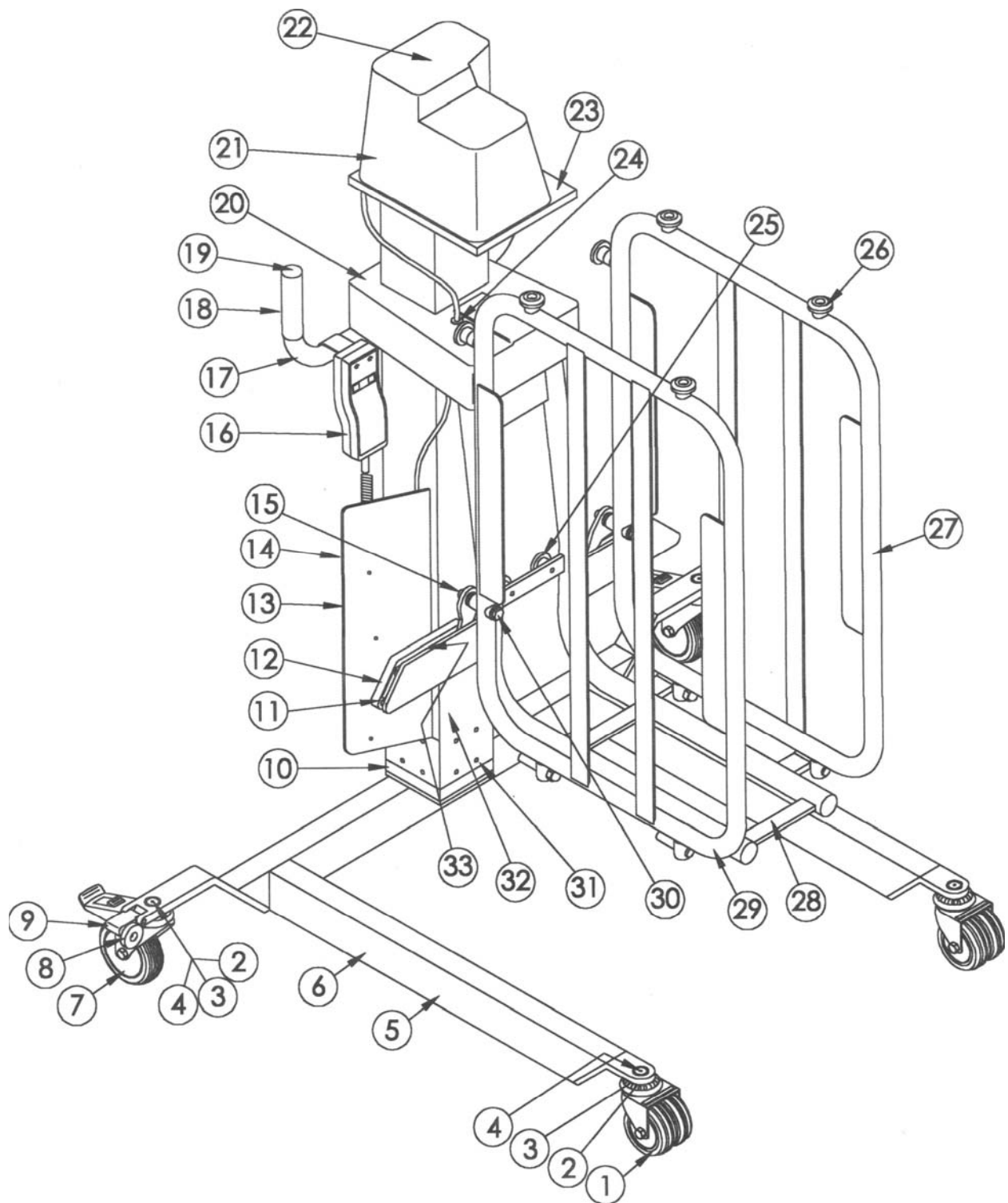
Magnetic Aktiengesellschaft shall not be liable for any damage resulting from failure to observe these instructions. These instructions shall not be regarded as an extension of the warranty and liability terms set out in the Conditions of Sale and Supply applied by Magnetic Aktiengesellschaft.

The product is not subject to the labelling requirements of the CE or EMC guidelines. The required EMC measures for the end product must be met by its manufacturer, taking into account installation factors, wiring and control, and these must be checked for compliance with the intended application.

Observance of these instructions is the responsibility of the manufacturer of the machine or equipment.

5.8 Troubleshooting

Fault	Cause	Remedy
None of the actuators are working	The EMERGENCY STOP has been pressed	Check plugs on the control devices and re-insert Unlock the EMERGENCY STOP button by turning it
	Deep-discharge protection of the control unit has been activated (display flashes yellow, control unit emits an audible signal when buttons are pressed)	Charge the batteries or replace the battery pack.
	No batteries in place	Insert batteries
	Battery does not make contact	Check that the batteries are fitted correctly and check their position
	Poor plug contact in the control device plug	Check the plug on the control device and re-insert
	Poor plug contact in the actuator	Check the motor plug and re-insert
An individual actuator is not working.	Actuator cable faulty	Check the cable and replace the actuator if necessary
The batteries will not charge	The battery is full (LED lights up green)	Subsequent charging can be restarted by briefly disconnecting the mains supply or the battery
	Batteries not inserted or inserted inadequately (LED lights up green)	Insert batteries and check position
	Display unlit	Check the mains cable and mains adapter for good plug contact
		Check the mains cable and mains adapter for damage
Actuator switches off during operation	Actuator overload in load direction	Check the power supply (domestic fuse)
	Batteries are nearly empty, LED flashes yellow when a button is pressed	Reduce the actuator load
	The batteries are empty, the LED flashes yellow and an audible signal is heard when a button is pressed (battery deep-discharge protection)	Recharge the batteries or replace the battery pack Do not continue to operate the device! Recharge the battery immediately or replace the battery pack



RECUMBENT LIFT

RECUMBENT/STRETCHER LIFT			
REF #	PART #	DESCRIPTION	QTY
1	MFG-9-523190	CASTER 3" NON-LOCK	2
2	MFG-9-238120	3/8-16X1.25 FH/SS	2
3	MFG-9-238153	3/8"-16X1.5 FH SS CAP SCREW	2
4	MFG-9-263820	3/8"-16 NYLON LOCKNUT	4
5	MFG-1-001045	RECUMBENT LIFT BASE	1
5*	MFG-9-244026	7/16 X 1 HH GR 5	2
5*	MFG-9-294405	7/16 SPLIT LOCK SS	2
6	MFG-4-900102	V-L LEG PROT. (BLUE)	2
7	MFG-9-523100	POLY CASTER 4" LOCKING	2
8	MFG-1-040124	STEERING LOCK STOP	4
9	MFG-1-040138	STEERING LOCK	2
10	MFG-1-001040	RECUMBENT INSIDE TUBE	1
11	MFG-1-040134	LOCK INDICATOR COVER - RIGHT	1
11	MFG-1-040133	LOCK INDICATOR COVER - LEFT	1
12	MFG-9-271072	10-32 X FH PH SS X 1/2	8
13	MFG-9-322200	MOBILETTE CONTROL	1
13*	MFG-9-225073	1/4-20 X 3/4 BH SH SS	2
14	MFG-9-321450	BATTERY-(II)	1
15	MFG-9-265021	3/8-16 ACORN NUT SS	4
16	MFG-9-322222	SINGLE HANDSWITCH	1
17	MFG-1-040142	RECUMBENT HANDLE	1
17*	MFG-9-238149	3/8-16X1.5 SH CAP SS	2
18	MFG-3-501642	HAND GRIP/CHAIR-BLUE	2
19	MFG-9-633830	1" END CAP-RUBBER	2
20	MFG-9-001050	PILLAR SHROUD-BLUE	1
20*	MFG-1-040141	TRIM RESTRAINT BRACKET	1
20*	MFG-1-604002	MOLDING-H STYLE (BL)	0.25
21	MFG-9-322210	MATRIX ACTUATOR 500M	1
21*	MFG-9-231751	5/16 X 3/4 FH SH CAP SS	2
21*	MFG-9-001043	MOTOR MOUNTING BRACKET	1
21*	MFG-9-268152	3/8-16 X 1.5 BH SH (SS)	3
21*	MFG-9-522090	BOT. ACT. PIN (COL)	1
21*	MFG-9-522095	PLASTIC SPACER FOR COLUMN	2
21*	MFG-9-677100	ACTUATOR SPACER	1
22	MFG-9-001049	PILLAR CAP	1
23	MFG-9-370651	6-32 X 3/8 BH SH SS	6
24	MFG-1-040140	BUNA-N RUBBER GROMMET	1
25	MFG-1-040139	1/4-20 ALUMINUM KNOB	2
26	MFG-1-040125	SAFETY STRAP BUTTON-WING	4
27	MFG-1-040011	STRETCHER WING - LEFT	1
27*	MFG-4-910065	LARGE STRETCHER PAD - COMPLETE	2
28	MFG-1-040012	RECUMBENT ARM ASSEMBLY	1
28*	MFG-4-910060	SMALL STRETCHER PAD - COMPLETE	1
29	MFG-1-040010	STRETCHER WING - RIGHT	1
30	MFG-9-238251	3/8-16X2.5 HH CAP SS	2
30*	MFG-1-040135	LOCK INDICATOR WASHER	4
31	MFG-9-001070	1/4-20 X 3/8 FLAT HD NYLON SCR	16
31*	MFG-9-001060	PILLAR BEARING	4
32	MFG-1-001042	RECUMBENT OUTSIDE TUBE	1
32*	MFG-9-225107	1/4-20 X 1/4 SH SET (SS)	4
32*	MFG-9-263821	3/8-16 NYLON LOCKNUT SS	3
32*	MFG-1-040136	CLAMP FOR 4" TUBE	1
32*	MFG-1-040137	CLAMP 4" TUBE RADIUS CORNER	1
32*	MFG-9-238106	3/8-16 X 6 HH SS	4
32*	MFG-9-320656	RECUMBENT CABLE CLAMP	2
33	MFG-9-491025	STRETCHER LOCK BRKT	2
33*	MFG-9-225035	3/16 X 5/8 ROLL PIN	2
*	MFG-9-271024	#10-24-1/4 BH SH-SS	3
*	MFG-1-040132	SAFETY STRAP BUTTON - ARM	2
*	MFG-1-040220	BELT, 3 PLY WITH HOLES	2
*	MFG-9-225075	1/4-20 X 3/4 FH SH (SS)	4
*	MFG-9-225077	1/4-20 X 3/4 SOC HD CAP SS	2
*	MFG-9-225103	1/4-20 X 1 FH SH -SS	4
*	MFG-9-320655	RECUMBENT CORD RESTRAINT	1
*	MFG-9-321224	MAINS ADAPTER	1
*	MFG-9-225151	1/4-20 X 1-1/2 SOCKET SET - SS	2
*	MFG-9-270638	#6 X 3/8 SCREW	4
*	MFG-9-270801	#8-32 X 1/4 PH PN SS M5	2
*	NOT PICTURED		