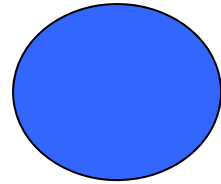


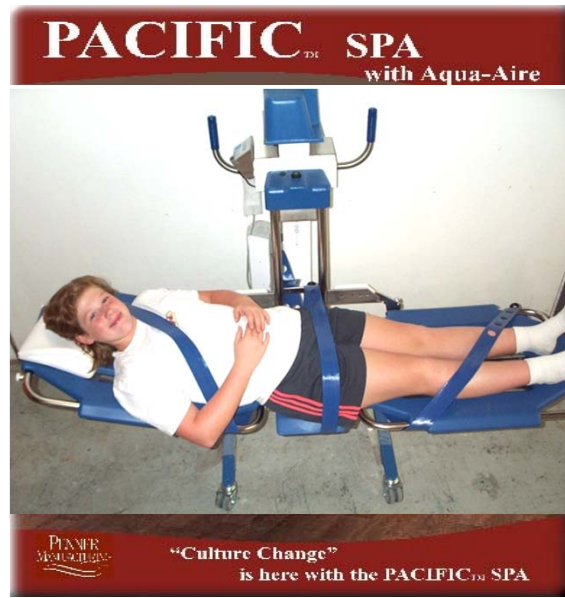
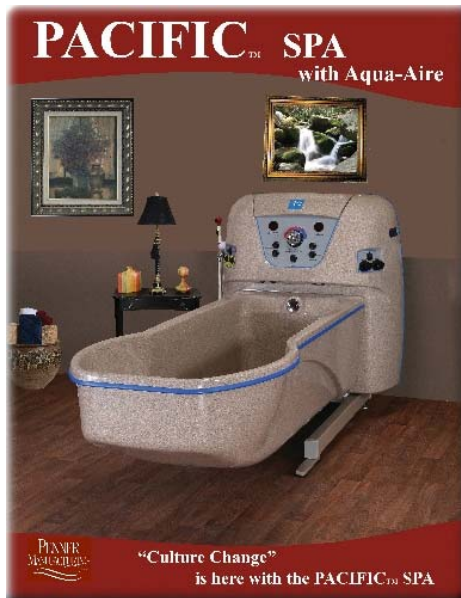
PENNER MANUFACTURING



Patient Stretcher/Transfer Lift System

Safe Operation & Daily Maintenance

Instructions



390850 Revision C 06/11/12


PENNER MANUFACTURING, INC

1-866-PENNERS

1-866-736-6377

1-800-732-0717

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Stretcher/Transfer Lift Technical Description

Manufacturer: Penner Manufacturing Inc
102 Grant St / PO Box 503
Aurora, NE 68818
(402) 694-5003

Penner Stretcher/Transfer Lift Model:

Model # 391000-1 Stretcher/Transfer Lift Electric Without Scale
Model # 392000-1 Stretcher/Transfer Lift Electric With Scale

Transfer Ratings 28 Volts DC (Rechargeable)
5.2 Amps
400 Lbs. Maximum Capacity
Duty: 10% Int.; 1 min on / 9 min off
18 inches Minimum clearance from floor
37 ½" inches Maximum clearance from floor
(Note: There is a 2" (two inch) adjustment to these clearances)

AC Adapter 120 Volts AC Input – 28 Volts Output (for charging only)

Transfer Charger Rating: Input – AC Adapter
.5 Amps

Introduction

Stretcher/Transfer Lift Technical Description

- The Pacific Stretcher/Transfer 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 392000-1 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 Pacific Stretcher/Transfer 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

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Transfer Technical Description (continued)

- **Regulatory Data**

In Accordance with the Standard For Safety of Medical Electrical Equipment UL 606001-1, CSA C22.2 NO. 601.1, IEC 60601-1

UL Classification:

Class I

Internally Powered

Type B

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





61LN


» **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**

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Distributor call 1-800-732-
0717 or 1-866-736-6377

Safety Information and Patient Assessment for the Penner Transfer systems.

-  Penner Stretcher/Transfer Lifts are designed and manufactured to meet or exceed the safety requirements for patient care equipment. In addition, they have been tested to ensure 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, and casters. 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 Penner Stretcher Transfer System should operate this equipment. Operation of this equipment by untrained personnel could result in injury to the operator or patient. Your Penner Patient Care distributor is available at your request to provide complete in-service training on the equipment's proper operation.

-  Before using the Penner Stretcher 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 Penner Stretcher 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 Pacific Stretcher Transfer System is designed to significantly improve the efficiency and environmental safety of your nursing care operation. However, the benefits designed into the Stretcher/Transfer 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 Stretcher Transfer System.

Penner Stretcher Transfer Criteria

The patient Must:

- a. Have no injuries or medical conditions that might be aggravated by the Penner Stretcher Transfer procedure.
- b. Weight less than 400 pounds.
- c. Be able to follow simple directions.
- d. Be able to lay restrained by the three belts with limbs inside of stretcher frame. (see page “8” for proper belting procedure)
- e. 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 Stretcher/ Transfer 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 Penner Stretcher /Transfer 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 Stretcher/Transfer 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.
- Penner Manufacturing shall not be responsible for any damage resulting from failure to observe these procedures.

System Preparation (Before Transferring or Lifting)



WARNING

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

Transferring from Bed to Bath, and/or Lifting

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

1. Install the mattress on the Stretcher/Transfer 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 Stretcher/Transfer Lift. Failure to do so could result in injury to the resident or operator.

System Preparation (Before Transferring or Lifting) continued

2. Push the Stretcher/Transfer 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.
6. Unlock the caster by lifting up on the lock-arm tab.



Transfer from Bath to Bed



WARNING

The Stretcher/Transfer Lift is pictured below with the head end wing in the first incline position. You may need to raise the level of this Stretcher/Transfer Lift head end wing to the second or third incline position based on the resident's size and the level of water in the tub. Adjust this 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.



WARNING

Do not adjust the incline of the stretcher wing, on the foot end, with the patient on the stretcher. Failure to follow this procedure could result in tipping and injury to the operator or patient.



WARNING

Never allow the resident to sit on either wing, only squarely on the center section of the Stretcher Lift. Failure to follow this procedure could result in tipping and injury to the operator or patient

Correct Belting Procedure



7. Adjust the incline of the Stretcher/Transfer Lift based on the residents size and level of water in the tub prior to getting patient.
8. Transfer the patient into the Stretcher/Transfer Lift using the proper nursing transfer techniques. Use the same belting procedure for all patients. Place three safety belts, one across the upper body, one across the lower body as shown above, and one across the middle of the body to the proper attaching points on the stretcher as shown above.

Transferring the Patient at the bath station



WARNING

Always Transport the patient with the Transfer in its lowest position and properly secured in the Stretcher /Transfer Lift before being transferred, Failure to follow this procedure could result in injury to the operator or patient.

8. Lower the Stretcher / Transfer 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.
9. At the bathing area, position the Penner Stretcher / Transfer Lift to the side of the Bathing system near the side of the tub, with the patient's feet towards the control panel.
10. Lock the casters once again on the Stretcher / Transfer 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 Stretcher /Transfer Lift operation.



WARNING

Do not allow the patient to interfere with the operation of the Stretcher/Transfer 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.

11. Once the Bathing System is at the correct height, if adjustable, unlock the transfer casters and carefully push the Stretcher / Transfer Lift towards the tub until the stretcher is located over the Bathing System. Ensure the legs of the Stretcher/ Transfer Lift clear the tub legs underneath the tub if applicable while pushing the unit in.
12. 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 Stretcher/Transfer Lift, whichever is safest for the resident and the operator.

Transferring the Patient into the Pacific Bath



WARNING

When using a Height Adjustable Bathing System in conjunction with the Stretcher / Transfer 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 Pacific tub and/or the Stretcher / Transfer Lift.

13. Before raising the Bathing System, if applicable, ensure that all limbs are inside the Stretcher so that the limbs don't get pinched between the tub rim and the bottom of the Stretcher frame. If height adjustable Bathing System, always be aware of the height of the Stretcher/Transfer Lift to ensure they do not hit each other or that objects get caught between the tub rim and the bottom of the Stretcher frame.
14. Lower the Stretcher/Transfer Lift into the tub until the resident is submersed 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 Stretcher/Transfer Lift and/or raising of the Bathing System.



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Transferring from Bath to Bed



WARNING

When using a Height Adjustable Bathing System in conjunction with the Stretcher/Transfer Lift, caution must be used when raising and lowering either unit together. Do not raise or lower the Bathing System without consideration of the Stretcher/Transfer Lift's position. Ensure that all limbs are inside the Stretcher 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 Stretcher/Transfer Lift.

2. If using a Height Adjustable System, lower it to its lowest position. Ensure the Patient's feet clear the control panel area.
3. If the bottom of the Stretcher / Transfer Lift will not clear the rail of the Bathing System, raise or adjust the height of the Stretcher/Transfer Lift to clear the rail two inches.
4. Rinse the resident's body with the shower sprayer.
5. Pat the resident dry with a soft towel. No rubbing is necessary.
6. 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.
7. 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 Stretcher/Transfer 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.

Transferring from Bath to Bed Continued



WARNING

Make sure the Stretcher / Transfer 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 Stretcher/Transfer 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.

8. Unlock the casters and position the Stretcher/ Transfer Lift in a clear area then push the “DOWN” Button until it is at it’s lowest position.
9. Ensure all two belts are properly secured. You may now push the patient back to the bed being careful to avoid uneven floors and objects in hallways.
10. Position the Stretcher / Transfer Lift beside the bed and lock the casters once again.
11. Release the belts from the patient and transfer the patient to the bed using proper nursing techniques.
12. With the Stretcher / Transfer Lift now empty, unlock the casters and return it to the bathing area for cleaning.
13. Raise the Stretcher / Transfer Lift to clear the edge of the Bathing System, still in it’s lowest position. Move the Stretcher / Transfer Lift over the Bathing System, 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 the weight flashing on and off.
6. Pressing the Penner 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) 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.

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Operating Controls Penner Transfer System



Control Unit- Transfer.

Emergency Stop Button
Stops operation 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, it may be lowered by depressing this button.

Transfer Battery (two each)

Sets into top of Control Unit. Must be charged Daily on wall charger.

Hand Control

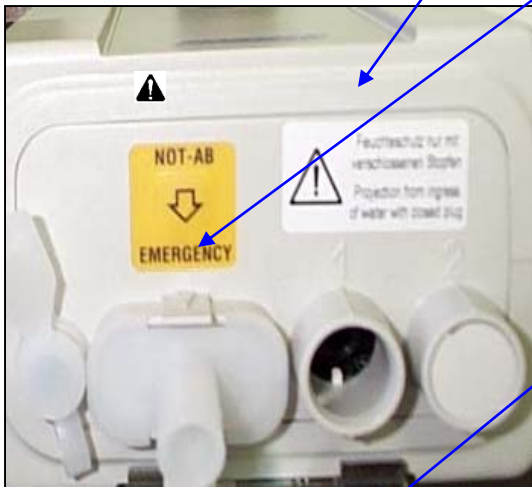
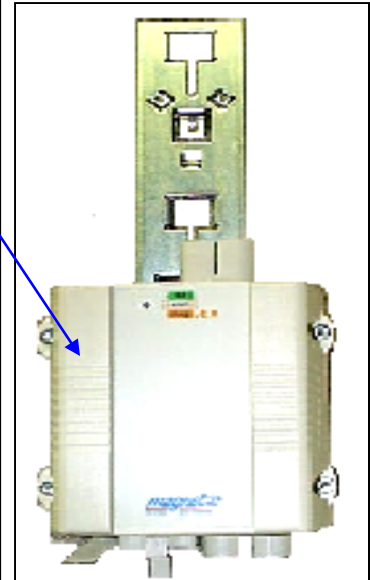
To raise or lower system. Plugs into Control Unit.

AC Adapter-

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

Caution-

The Transfer Lift is intended to be operated by internal power only. 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.

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System Cleaning (After Every Bath)

Clean and disinfect the Bathing System and Stretcher/Transfer Lift after every bath with Penner Cleaner/Disinfectant as follows:

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

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 Penner equipment. Failure to heed this caution could result in damage to the equipment and void the warranty.

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.

General Precautions and Maintenance of the Penner Transfer

System Cleaning (After Every Bath)

- Clean and disinfect the Transfer after every bath with Penner Cleaner/Disinfectant as follows:
- **Note.** Penner Cleaner/Disinfectant is a special non-abrasive cleaning and disinfecting solution that will not harm the tub's fiberglass surface. Penner Cleaner/Disinfectant is the only cleaning solution designed and recommended for use with your Pacific Tub.
- 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 Penner Transfer
- Position the Transfer seat chair frame over the tub, then using a long-handled brush (available from your Penner 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.
- Thoroughly rinse all cleaned components of the Transfer System Chair.



WARNING

Housekeeping personnel should wear protective glasses and gloves to prevent disinfectant from damaging their eyes or skin. If disinfectant gets on the skin or in the eyes, rinse thoroughly with plenty of water. Seek medical advice if irritation occurs.

Daily Safety Checklist

CHECK THE FOLLOWING ITEMS EACH DAY BEFORE USING YOUR PENNER TRANSFER SYSTEM.

Perform the following safety checks for the Penner Transfer:

1. Stretcher/Transfer Lift Belts – Check the condition of the belt(s) for signs of excessive wear.
2. Stretcher/Transfer Lift Latch – Check the latch on the Stretcher/Transfer 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.

WARNING

If during the safety checks you find parts are missing, are 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 Penner Distributor and his personnel are trained to provide in-service instruction and maintenance on your Penner Transfer System . If you have any questions about the operation or maintenance of your System, please contact your Penner Distributor.

For your nearest Penner distributor, contact .

Penner Patient Care, Inc

at

1-866-736-6377 OR 1-800-732-0717.

Magnetic Technical Manual

Technical Manual



MOBILETTE control unit

Contents

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Compliance with the Technical Instructions, Liability, Application, Product Package, Function, Connections, Safety Devices	page 1
Installation, Accumulator Pack	page 2
Connecting the Handswitch, Connecting the Motors, Cleaning, Maintenance, Technical Data, Troubleshooting	page 3
	page 4

Reference Standards:

EN 60601-1
EN ISO 10535
UL 2501

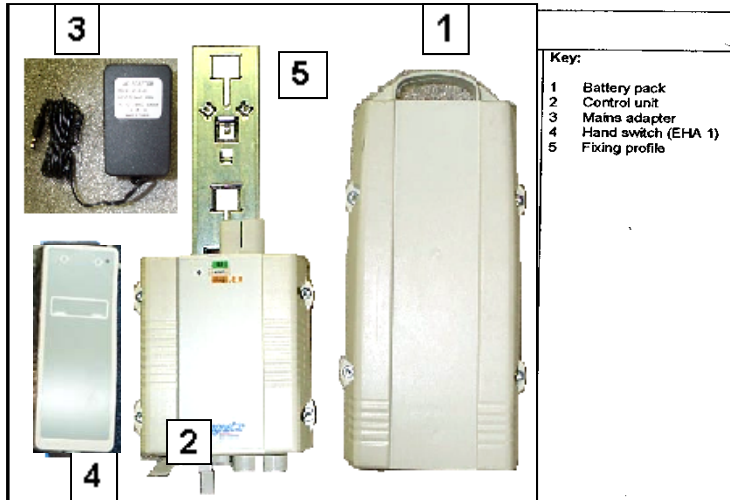


Fig. 0 General Arrangement

Subject to modifications in the interests of technical progress

Mobilette 531E, 2931/0.99

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Magnetic Technical Manual Page One

Technical Manual

magnetic
Antriebstechnik

Control Components for the DC Version of the Linear Actuator



These devices must not be operated in potentially explosive atmospheres!

Compliance with the Technical Instructions

This unit must only be handled by personnel who are fully conversant with this Technical Instructions and in accordance with the instructions contained therein. The unit must only be used as described and should only be installed and connected by qualified technical personnel!

Liability for Function or Damage

In every case, the owner or operator of the unit shall be liable for its function if the unit has been incorrectly 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 labeling obligation defined in CE or EMC Directives. The requisite EMC procedures must be applied to the end product – with reference to the conditions of installation, wiring and control – by the manufacturer of the end product and they must be verified in accordance with the intended application. The manufacturer of the machine or system shall be responsible for compliance with these instructions.

Application

The MOBILETTE 'Lifter Control Unit' is solely intended for controlling the DC Version of the Magnetic series of linear actuators:

- MAX1
- MAX3
- MAT1/2
- THG1
- TLG1

Product Package

The MOBILETTE 'Lifter Control Unit' consists of the:

- accumulator unit,
- control unit and
- fixing profile.

The mains adapter (3) is available as an option (see Sheet I).

Function

The 24 V DC charging voltage is fed into the control unit via the mains adapter connected to the mains power supply or via a mains cable and the integral transformer. The fitted accumulator unit is then charged in order to maintain the power supply to the linear actuator.

An integral current cut-off protects the actuator against overload.

Connections

The control unit is equipped with clearly-marked sockets for:

- the mains adapter or mains cable,
- 1 or 2 linear actuators and
- the handswitch.

Safety Devices

'Emergency OFF' and 'Emergency Lowering'

The control unit incorporates two different emergency functions: 'Emergency OFF' and 'Emergency Lowering'. It is important for every operator to be familiar with the different reactions to the two commands.

'Emergency OFF'

The linear actuator is isolated from the power supply and immediately comes to rest. The 'Emergency OFF' function should only be deployed in the event of an immediate danger.

'Emergency OFF' pushbutton:

- red domed button on a grey background
- latches when pressed
- to unlock: turn the red knob in the direction of the arrow.

'Emergency Lower' linear actuator (option)

In the event of a defect in the control unit, it is bypassed and the linear actuator can be electrically lowered (retracted) by pressing the 'Emergency Lower' pushbutton.

'Emergency Lower' pushbutton:

- Grey pushbutton on a grey background

'Emergency Lower' mounting location

As an option, the pushbutton can be mounted next to the connections on the MOBILETTE 'Lifter Control Unit'.

Overload cut-off

An overload cut-off is incorporated in the built-in electronics module and, in the event of excessive current consumption, the actuator is automatically shut down. The maximum permissible current consumption of the actuators is indicated on the type key.



The output current of the control unit (see rating label) should not exceed the max. current of the actuator (see data label).

If the current consumption exceeds this value, the linear actuator will become overloaded and may be permanently damaged!



The maximum current consumption under full load should be measured at the installation stage. It should not exceed the value specified on the type key. If the current consumption exceeds this value, the linear actuator will become overloaded and may be permanently damaged!

Magnetic Technical Manual Page Two

Technical Manual



Installation

The control unit must be mounted on the brackets provided for this purpose on the fixing profile, in such a way that it is free from mechanical stress and vibrations.

⚠ All the cables must be secured so that the connectors on the control unit are not subject to load. Incorrectly-seated connectors will not provide a satisfactory seal and can result in permanent damage to the control unit!

Possible mounting positions include:

- I) Vertically, with the accumulator pack above the control unit,
- II) Horizontally, lying flat,
- III) Horizontally, standing up,
- IV) Horizontally, suspended.

A vertically suspended mounting position, with the accumulator pack located beneath the control unit, is not possible because the battery pack could become dislodged and fall out.

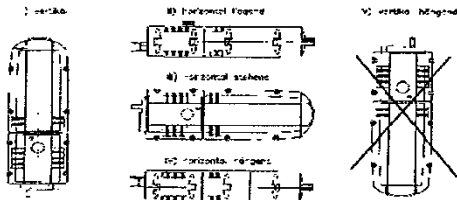


Fig. 1 Attachment and mounting position

Accumulator Pack

The linear actuator derives its power from the accumulator pack. The accumulator pack is secured to the control unit by means of a latching spring.

The accumulator pack consists of two 12 Volt 4.5 Ah accumulators, wired in series and with an output of 24 Volts.

Only accumulators and battery chargers approved by the manufacturer should be used.

The service life of the accumulators is dependent on the load and the state of charge; in ideal conditions, they can be used for up to five years.

⚠ A ventilation hole is provided in the accumulator pack in order to dissipate the gases generated by the accumulators. The ventilation hole should not be damaged, blanked off or painted over. Beware of hazards due to the ingress of fluid or obstruction of the ventilation hole!

⚠ The accumulator and control unit housing should only be opened by Magnetic personnel!

⚡ Discharged accumulators should be recharged without delay. Accumulators in storage should be recharged every 6 months.

The accumulators should only be replaced by Magnetic personnel!

Charging and discharging the accumulators

⚠ The accumulators should only be recharged in well-ventilated areas, due to the potential hazard from the release of explosive gases!

The accumulator charging process is initiated when the mains adapter or the mains cable is connected or if the accumulator pack is connected with the mains adapter or the mains cable plugged in.

The LED indicates the state of charge of the accumulators. These LEDs have two different display functions.

Mains power supply connected:

LED	Function
Yellow	Accumulators being charged, mains power 'on'. Note: If the charging cycle is longer than 20 hours, the battery or the control unit is defective. Remove the mains adapter from the mains socket outlet.
Green	Accumulators have been recharged, mains power 'on'.
Not lit	No mains power supply.

During rotation of a motor:

LED	Function
Not lit	Accumulators are ready for operation.
Flashing yellow	Accumulators must be recharged, as only approx. 20 % of the residual capacity is available!
Beep tone	Accumulator capacity is sufficient for at least one double stroke. The accumulators must be recharged, otherwise the deep discharge protection will disable the actuator!

Replacing the accumulator pack

Defective or exhausted accumulators and chargers will be exchanged by the Magnetic Service Department.

⚠ Accumulators must be recycled, properly disposed of or returned to Magnetic Liestal AG. They should not be discarded with domestic refuse!

Pull the handle to overcome the spring force, then remove the accumulator pack from the front of the fixing profile.

To replace the accumulator pack, insert it into the guides in the fixing profile and push it in the direction of the control unit.

⚠ The accumulator unit must be locked securely in position, otherwise the accumulator pack could become dislodged and fall out!

Magnetic Technical Manual Page Three

Technical Manual



Connecting the Handswitch

The handswitch is connected to the control unit with the D-Sub connector. It can be replaced.

Once it has been plugged into the mains socket outlet, the handswitch cable is strain-relieved and sealed by means of the integrally-cast cam. The cam engages with the retaining clip.

The connector for the handswitch cable must be inserted in the correct socket, otherwise the socket outlet in the control unit will be displaced and permanently damaged. Note the configuration of the connector!

When the handswitch cable is inserted or disconnected, the retaining clip should only be pressed lightly downward (see Fig. 2).

Excessive downward pressure will break the retaining clip, with consequent loss of strain relief!

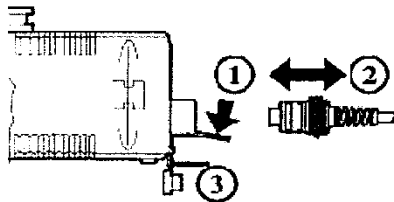


Fig. 2 Plugging in/removing the handswitch cable

Connecting the Motors

The control unit is equipped with two socket connectors for linear actuators 1 and 2.

The connectors must be inserted into the control unit until the O-rings are no longer visible. Once they have been inserted, use the Magnetic special plug disassembling tool, Part No. 140375, to rotate them by approx. 30° to the right as far as the limit stop. Failure to do so will result in loss of strain relief and sealing capacity (see Fig. 3)!

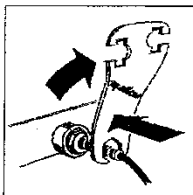


Fig. 3 Securing the motor connector

Motor connections which are not required are sealed at the factory with waterproof blanking plugs. These should not be removed.

Before each connection is made, the sealing rings of the control switch connectors and motor connectors must be checked for damage and, if necessary, they must be replaced (refer to the Spare Parts Lists).

The control unit will be permanently damaged by the ingress of fluids!

The sealing rings of the connectors should be lightly lubricated with Klübersynth VR-252, Magnetic Order No. R50014. The use of other low-friction lubricants may damage the sealing rings and the plastic housing!

Cleaning

Protection from water, cleaning, disinfection

The control unit is protected to IPX4.

The control unit must only be cleaned while the motors and control switches are properly connected and while the adapter input is sealed with blanking plugs (3, Fig. 2). The control unit will be permanently damaged by the ingress of fluids. At regular intervals (every six months), the plastic housing must be checked for signs of mechanical damage (cracks)! Sealing points should be periodically checked for signs of damage.

- Maximum cleaning and drying temperature: 65 °C! As soon as possible after use, the unit must be cleaned in order to prevent the accretion of residues!
- The unit should be cleaned by hand with a damp cloth and water, without the use of cleaning agents.

The Magnetic Special Instructions ML 0111/87 must be observed. 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. Manually-controlled and mechanical high pressure cleaning equipment must not be used. Only isopropyl alcohol should be used as a cleaning agent for wipe-over disinfection.

Maintenance

The control unit and accumulator unit should only be maintained by Magnetic Customer Service personnel!

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Technical Manual



Technical Data

Refer to the brochures: 'Control Unit' Type MCU...
'Charging Station' Type ZLA - 142Z1

Troubleshooting

Error	Cause	Measure
All actuators do not work	Emergency-OFF on	Cancel emergency-OFF with a rotary movement
	Deep discharge protection of the control unit is activated (display flashes yellow, control unit signals audibly when a key is pushed)	Charge battery or replace battery with a full one.
	No battery placed	Place battery
	Battery does not make contact	Place battery correctly and check position
Single actuator does not work	Bad connector contact of operation element plug	Check operation element plug and connect the plug once again
	Bad connector contact	Check motor plug and connect the plug once again
Batteries do not charge	Actuator cable damaged	Check cable and replace the actuator, if necessary
	Battery full (LED indicates green)	Recharge can be started again by short removal of the mains voltage or the battery
	Battery is not or incorrectly placed (LED indicates green)	Place battery and check position
Actuator shuts down at operation	Dark display	Check mains adapter or mains cable for damages Check mains supply (house fuses)
	Actuator overload in load direction	Reduce actuator load
	Batteries are empty (LED flashes yellow and control indicates a buzzing signal when a key is pushed (deep discharge protection of the battery))	Charge battery or replace battery pack