

Invacare[®] Birdie[™]

Birdie[™] , Birdie[™] Compact

EN Portable Patient Lift
User Manual



This manual **MUST** be given to the user of the product.
BEFORE using this product, read this manual and save for future reference.



Yes, you can.[®]

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Contents

1	General	5
1.1	About this manual	5
1.2	Intended Use	5
1.3	Scope of delivery	6
1.4	Service Life	6
1.5	Warranty Information	7
2	Safety	8
2.1	Safety information	8
2.2	Operating Information	8
	General	8
	Pinch Points and Positioning	9
2.3	Radio Frequency Interference	9
2.4	Product labeling	9
3	Overview	11
3.1	Main parts of the lift	11
3.2	Accessories	12
4	Setup	13
4.1	Safe Assembly	13
4.2	Assembling the Mast to the Base	13
4.3	Assembling the Electric Actuator to the Boom	14
4.4	Mounting the hanger bar	14
4.5	Disassembling of the lift	15
4.6	Checking the service light	15
5	Usage	17
5.1	Introduction	17
5.2	Raising/Lowering the Lift	17
	Raising/Lowering an Electric Lift	17
5.3	Closing/Opening Legs	17
	Closing/Opening Electric Legs	17
	Closing/Opening legs manually	18
5.4	Performing an Emergency Stop	18
5.5	Activating an Emergency Release	18
5.6	Charging the battery	20
6	Lifting the Patient	22
6.1	Safe Lifting	22
6.2	Preparing to Lift	23
6.3	Attaching the Slings to the Lift	25
6.4	Lifting and Transferring the Patient	26
	Floor Transfers (Lifting from the Floor)	27
	Commode Transfer Guidelines	29
	Bed Transfer	30
	Wheelchair Transfer	30
7	Maintenance	32
7.1	Maintenance and Safety Inspection	32
	Safety inspection checklist	34
7.2	Lubricating the Lift	35
7.3	Cleaning the Sling and Lift	35
7.4	Checking and Tightening Mast Pivot Bolt	35
7.5	Checking the carabiner and its mounting	36
7.6	Replacing the Hanger Bar	36
8	After Use	37
8.1	Transportation and Storage	37
8.2	Disposal	37
8.3	Reuse	37
9	Troubleshooting	38
9.1	Identifying and repairing faults	38
10	Technical data	40
10.1	Dimensions and weight	40
10.2	Electrical system	41

10.3 Electromagnetic compliance (EMC)
information 42

10.4 Environmental conditions 42

10.5 Materials 42

I General

I.1 About this manual

Thank you for choosing an Invacare product.

This user manual contains important information about the handling of the product. In order to ensure safety when using the product, read the user manual carefully and follow the safety instructions.

Please note that there may be sections in this user manual, which are not relevant to your product, since this manual applies to all existing modules (on the date of printing).

Symbols in this manual

In this user manual, warnings are indicated by symbols. The warning symbols are accompanied by a heading that indicates the severity of the danger.



WARNING

Indicates a hazardous situation that could result in serious injury or death if it is not avoided.



CAUTION

Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.



IMPORTANT

Indicates a hazardous situation that could result in damage to property if it is not avoided.



Tips and Recommendations

Gives useful tips, recommendations and information for efficient, trouble-free use.



This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.

I.2 Intended Use



WARNING! **Risk of Falling**

The Invacare mobile patient lift is NOT a transport device. It is intended to transfer an individual from one resting surface to another (such as a bed to a wheelchair).

Invacare slings and patient lift accessories are specifically designed to be used in conjunction with Invacare patient lifts.

Mobile patient lifts are battery-powered transfer devices, designed to be used in most of the common lifting situations, for example:

- Between the bed and a wheelchair
- To and from the toilet
- Lowering and raising patients to/from the floor

The mobile patient lift can be used to transfer and position completely or partially immobile patients. There are no known contraindications for this product.

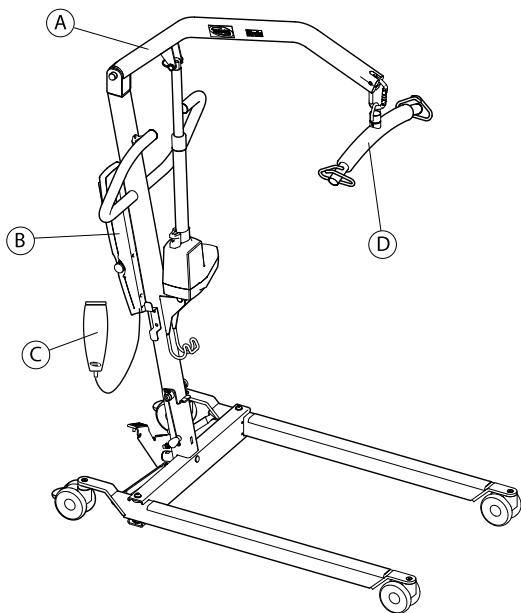
Selecting the appropriate slings and accessories for each individual is important to assure safety when using a patient lift. See Invacare's sling and accessory user manuals for further information on those devices.

Invacare recommends that the patient be transferred to a shower chair or other means for bathing.

The mobile patient lift can be turned (rotated) in place for transfers with limited floor space.

1.3 Scope of delivery

The items listed in the tables are included in your package. Slings and additional hanger bars are sold separately. Depending on your model, the wall charger may be sold separately.



(A)	Lift (1 piece)
(B)	Battery (1 piece)
(C)	Hand control (1 piece)
(D)	Hanger bar (1 piece)
(E)	Mains cable (1 piece)
(F)	User Manual (1 piece)
(G)	Manual leg spreader handle (1 piece, optional)
(H)	Sling (1 piece, optional)

1.4 Service Life



WARNING!

Risk of Falling

Maintenance **MUST** be performed only by qualified personnel.

Improper assembly may cause injury or damage.

- Regular maintenance of patient lifts and accessories is necessary to assure proper operation.
- **DO NOT** overtighten the mounting hardware. This will damage the mounting bracket.

The hoist has an expected lifetime of 8 years.

Actuator Service Life

Number of lifts per day	Service life of actuator (in years)
1-2	10
3	9

Number of lifts per day	Service life of actuator (in years)
4	6
5	5
6	4
7	3
10-13	2
14-27	1

I.5 Warranty Information

Terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.

Contact information for your local Invacare office is located inside the back cover of this manual.

2 Safety

2.1 Safety information



WARNING!

- Do not use this product or any available optional equipment without first completely reading and understanding these instructions and any additional instructional material such as user manuals, service manuals or instruction sheets supplied with this product or optional equipment. If you are unable to understand the warnings, cautions or instructions, contact a healthcare professional, dealer or technical personnel before attempting to use this equipment - otherwise, injury or damage may occur.



The information contained in this document is subject to change without notice.

Check all parts for shipping damage before using. In case of damage, Do not use the equipment. Contact the Dealer or Invacare representative for further instructions.

2.2 Operating Information

This section of the manual contains general safety information about your product. For specific safety information, refer to the appropriate section of the manual and procedures within that section. For instance, for safety information related to assembling the lift, refer to section 4 Setup, page 13.

General



WARNING!

Risk of Falling

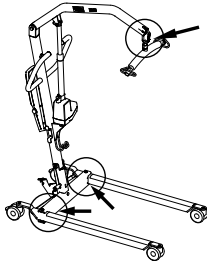
- Do not attempt any transfer without approval of the patient's physician, nurse or medical assistant. Thoroughly read the instructions in this User Manual, observe a trained team of experts perform the lifting procedures and then perform the entire lift procedure several times with proper supervision and a capable individual acting as a patient.
- Use common sense in all lifts. Special care must be taken with people with disabilities who cannot cooperate while being lifted.
 - Use steering handle on the mast at all times to push or pull the patient lift.
 - Be sure to check the sling attachments each time the sling is removed and replaced, to ensure that it is properly attached before the patient is removed from a stationary object (bed, chair or commode).



WARNING!

- The patient lift can be used indoors or outdoors. If the patient lift is used in the area of a shower or bath, ensure that the patient lift is wiped clean of any moisture after use.
- Periodically inspect all components of the patient lift for signs of corrosion. Replace all parts that are corroded or damaged.

Pinch Points and Positioning



WARNING!

Risk of Injury

Pinch points are present in several locations on the lift and fingers could be pinched.

The hanger bar can move suddenly and cause injury.

- Always keep hands and fingers clear of moving parts.
- When positioning lift, be aware of the position of the hanger bar and the patient.

2.3 Radio Frequency Interference

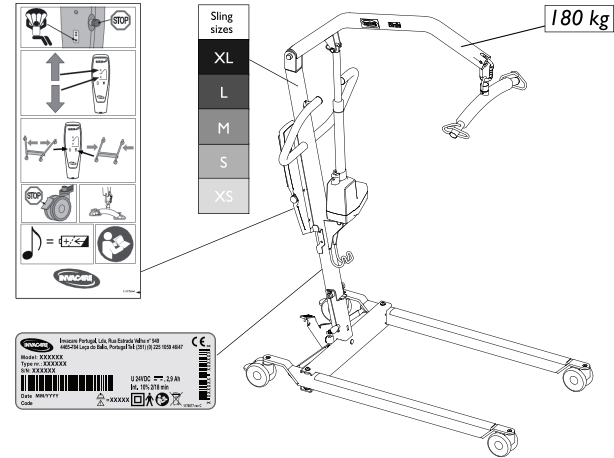


WARNING!

– Most electronic equipment is influenced by Radio Frequency Interference (RFI). CAUTION should be exercised with regard to the use of portable communication equipment in the area around such equipment. If RFI causes erratic behavior, PUSH the Red Power Switch OFF IMMEDIATELY. DO NOT turn the Power Switch ON while transmission is in progress.

2.4 Product labeling

Label location



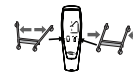
Symbols on the label



Emergency stop / Emergency release



Raise/lower the boom



Open/close legs



Open/close legs manually



Tool-less hanger bar attachment. Refer to 7.6
Replacing the Hanger Bar, page 36.



Caster lock



Audible tone when battery low. Refer to 5.6
Charging the battery, page 20.



Read Manual



Date of manufacture.



This product complies with Directive 93/42/EEC
concerning medical devices. The launch date of
this product is stated in the EC declaration of
conformity.



Safe Working Load



Class II equipment



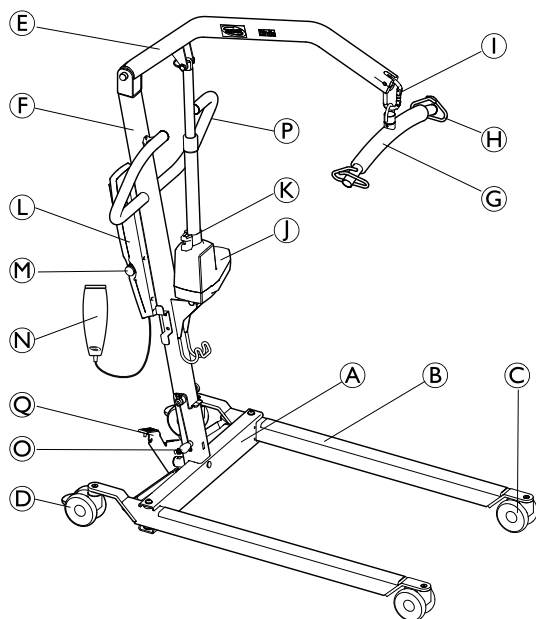
Type B applied part



WEEE conform. Refer to 8.2 Disposal, page 37.

3 Overview

3.1 Main parts of the lift



(A)	Base
(B)	Leg
(C)	Caster
(D)	Rear castor with brake
(E)	Boom
(F)	Mast
(G)	Hanger bar
(H)	Hook for sling
(I)	Carabiner
(J)	Actuator
(K)	Manual emergency lowering handle
(L)	Control unit with Battery
(M)	Emergency Stop
(N)	Hand control
(O)	Locking pin
(P)	Steering handle
(Q)	Foot pedal for leg spreader
	Leg spreader handle (optional)
	Motor for electrical operation of legs (optional)

3.2 Accessories



CAUTION!

Compatibility of slings and hanger bars

Invacare® uses a "Loop and Coat Hanger Bar System" as do many other manufacturers. Therefore other suitable patient transfer systems (slings), manufactured by other companies, can be used on the Invacare patient lift range as well.

However we do recommend:

- A risk assessment is always to be carried out by a professional prior to issuing lifting equipment. It is important that the Task, Individual, Load, Environment and Equipment are considered in the risk assessment.
- Always choose the sling design and size according to the clients weight, size and physical ability whilst considering the type of transfer to be carried out.
- Do only use slings that are suitable for a "Loop and Coat Hanger Bar System".
- Do not use slings for "Keyhole Hanger Bar" or for "Tilting Frame Hanger Bar" designs.

Available accessories

- 4 point hanger bar ("Coat Hanger Bar System"), 45 or 55 cm wide
- 2 point hanger bar ("Coat Hanger Bar System"), 35, 45 or 55 cm wide
- Scale to be mounted with the hanger bar
- Handle for leg spread

Sling models for "Loop and Coat Hanger Bar System":

- Full body support slings – without head support
- Full body support slings –with head support
- Slings for dress/toileting – with or without head support
- Slings for amputee

4 Setup

4.1 Safe Assembly



WARNING!

Risk of Injury

Improper assembly may cause injury or damage.

- Assembly **MUST** be performed only by qualified personnel.
- Use only Invacare parts in the assembly of this patient lift.
- The base legs, the mast, boom, pump assembly and the hanger bar are manufactured to specifications that assure correct alignment of all parts for safe functional operation.
- **DO NOT** overtighten the mounting hardware. This will damage the mounting bracket.



There are no tools required to assemble the patient lift.

If there are any issues or questions during assembly, contact a local Invacare representative. Refer to the contact information on the last page in this manual.

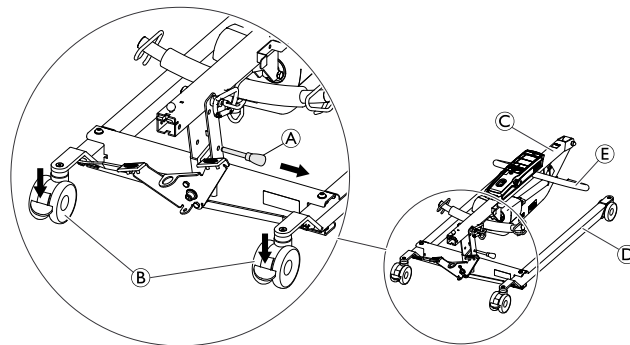
4.2 Assembling the Mast to the Base



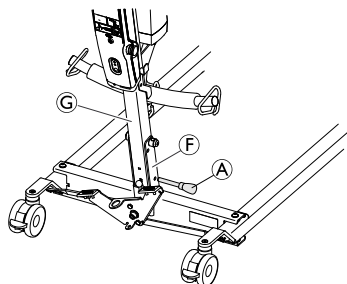
WARNING!

- The mast may be folded for storage or transporting. Each time the mast is folded, the mast **MUST** be properly secured to the base assembly.
- Check all parts for visible defects or damage before assembly. In case of any damage, do not use the product and contact Invacare®.
- Make sure the emergency stop is activated before assembly or disassembly.
- Take care when lifting components during assembly. Some parts are heavy. Always remember to adopt the correct lifting position.

Perform unpacking and assembly operation at floor level.

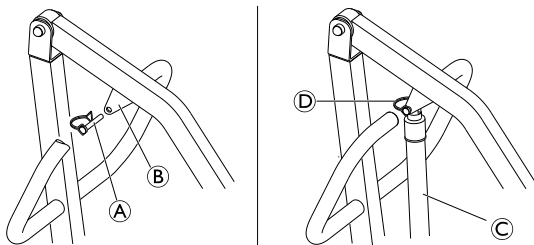


1. Lock both rear casters **B**. Remove the locking pin **A**.
2. Raise the mast assembly **C** to an upright position by stepping with one foot on the leg **D** and pulling the handle bar **E** upwards until it locks in place.



3. Reinstall the locking pin (A) through the mast (G) and base (F). Ensure that the locking pin is correctly inserted.

4.3 Assembling the Electric Actuator to the Boom



1. Loosen the hanger bar by pulling it downwards out of the welded fork on the mast.
2. Remove the quick release pin (A) from the boom mounting bracket (B).
3. Align the holes of the boom mounting bracket with those of the actuator (C).
4. Reinstall the quick release pin (A) and secure with the clip (D).

- i** Be sure that the pin is completely through the holes of the boom mounting bracket and the actuator assembly. The boom assembly will pivot easily if the mounting hardware is aligned properly when the boom is secured to the mast.

5. Connect the actuator to the battery. Plug the hand control into the battery.

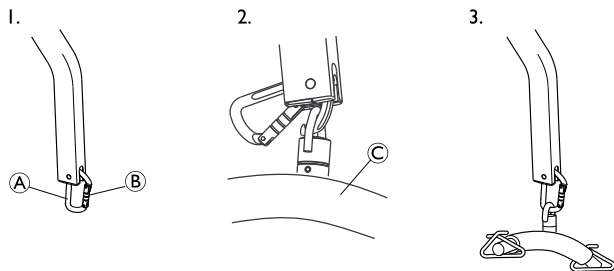
4.4 Mounting the hanger bar



WARNING!

Risk of injury

- Use only hanger bars made for this lift (“Coat Hanger Bar System”).
- Make sure the hanger bar is suitable for the patient and the actual lift or transfer required.
- Check that the hanger bar is firmly attached to the carabiner. The safety catch of the carabiner must be closed after the hanger bar is mounted and before lifting the patient. There is risk of detachment if the safety catch is not correctly closed.



1. Open the carabiner (A) by pushing the safety catch (B) backwards with one hand.
2. Hold the safety catch in the open position and attach the hanger bar (C) to the upper part of the carabiner with the other hand.
3. Release the safety catch and move the hanger bar to the lower point of the carabiner.

4.5 Disassembling of the lift

1. Remove optional leg spreader handle if attached.
2. Lower the boom and narrow both legs completely.
3. Activate the emergency stop button and apply castor brakes.
4. Remove the pipe pin and the motor piston from the boom, reinstall the pipe pin in the piston end, and lock the motor into the clips on the mast.
5. Attach the hanger bar into the welded fork on the mast.
6. Remove the locking pin from the base of the mast, release the safety latch, lower the mast, and relocate the locking pin into the mast near the suspension axle of the mast.

The lift can now be located in the packaging box, pulled on the rear wheels, or parked in an upright position with the mast/boom assembly pointing upwards.

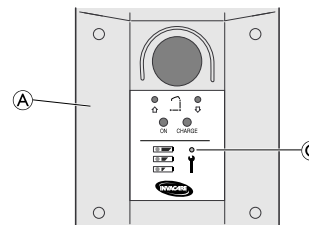
4.6 Checking the service light

(Jumbo Care control unit only)



CAUTION!

- Each time the lift is assembled, and before using the lift, the service light should be checked.
- The service light should only be reset by a qualified technician and must never be reset by untrained personnel.




1. Examine the control box (A) to see if the service light (C) is flashing.
2. When service light is not flashing, the lift is ready for use.
When service light is flashing, refer to the table:

Initial Assembly	A qualified technician has to reset the service light: <ol style="list-style-type: none">1. Locate the hand control.2. Press and hold the UP button and the DOWN button at the same time for five seconds.3. You will hear a sound when the service light has been reset.
Reassembly	The lift requires service. Contact your local Invacare dealer or representative for service.

5 Usage

5.1 Introduction

The operation of the patient lift is an easy and safe procedure.

 Before using the lift with a patient, refer to the following procedures for safety information and instruction:

- 2.2 Operating Information, page 8
- 6.4 Lifting and Transferring the Patient, page 26

5.2 Raising/Lowering the Lift



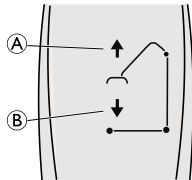
WARNING! Risk of Injury

The lift could tip and endanger the patient and assistants.

- Invacare does not recommend locking of the rear casters of the patient lift when lifting a patient.
- Invacare does recommend that the rear casters be left unlocked during lifting procedures to allow the patient lift to stabilize itself when the patient is initially lifted from a chair, bed or any stationary object.

Raising/Lowering an Electric Lift

The hand control is used to raise or lower the lift.



1. To raise the lift — Press and hold the UP **A** button to raise the boom and the patient.
2. To lower the lift — Press and hold the DOWN **B** button to lower the boom and the patient.



Release the button to stop raising or lowering the lift.

5.3 Closing/Opening Legs



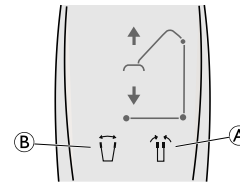
WARNING! Risk of Injury

The lift could tip and endanger the patient and assistants.

- The legs of the lift must be in the maximum open position for optimum stability and safety. If it is necessary to close the legs of the lift to maneuver the lift under a bed, close the legs of the lift only as long as it takes to position the lift over the patient and lift the patient off the surface of the bed. When the legs of the lift are no longer under the bed, return the legs of the lift to the maximum open position.

Closing/Opening Electric Legs

The hand control is used to open or close the legs of the base.

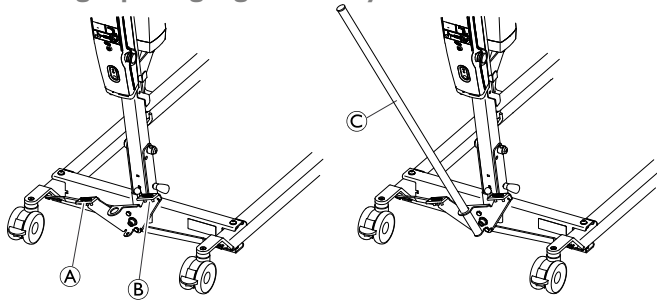


1. To close the legs, press and hold the legs closed button **A**.
2. To open the legs, press and hold the legs open button **B**.



The legs will stop moving when the button is released.

Closing/Opening legs manually



The manual leg spreader is operated by two pedals (A and B) or by the optional leg spreader handle C.

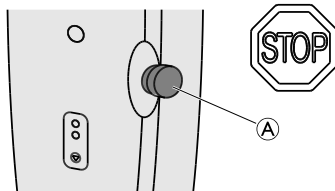
1. To open the legs, press the left pedal (A) with a foot.
2. To close the legs, press the right pedal (B) with a foot.

With the optional handle bar:

1. To open the legs, pull the leg spreader handle C to the left.
2. To close the legs, push the leg spreader handle C to the right.

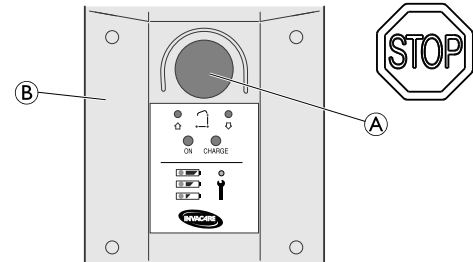
5.4 Performing an Emergency Stop

Emergency Stop with CBJ Home control unit




1. Press the red emergency button (A) on the control unit to stop the boom and patient from raising or lowering.
2. To reset, rotate the emergency button clockwise.

Emergency Stop with Jumbo Care control unit



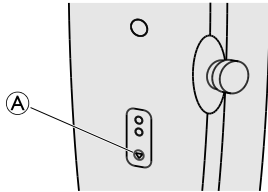
1. Press the red button (A) on the control unit (B) to stop the boom and patient from raising or lowering.
2. To reset, rotate the emergency button clockwise.

 For more information about the Jumbo Care control unit, see separate Jumbo Care user manual or ask your local Invacare® dealer.

5.5 Activating an Emergency Release

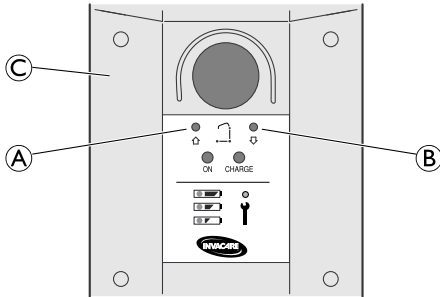
Emergency release with CBJ Home control unit

If the hand control fails, the boom can be lowered by using the circular switch for emergency release.




1. Lower the boom by pressing and holding button **A** at the front of the control unit.
2. Stop lowering the boom by releasing the button.

Emergency Release with Jumbo Care control unit




1. Insert a pen into the hole labeled Emergency Up **A** or Emergency Down **B** on the control box **C**.

 For more information about the Jumbo Care control unit, see separate Jumbo Care user manual or ask your local Invacare® dealer.

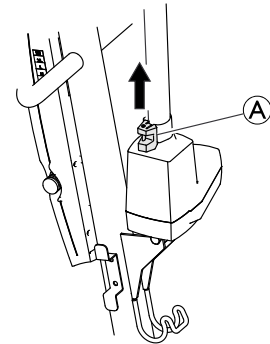
Activating an emergency release manually

(Not available on Birdie™ Compact)

For the case of partial or total power failure, or if the battery runs down while using the lift, Birdie™ is equipped with a manual emergency release system located at the bottom of the actuator.

 It is recommended that the primary emergency release be used. The secondary (manual) emergency release is only a back-up to the primary emergency release.

1. Pull up on the emergency grip **A** and push down on the boom at the same time.



The manual emergency release system will only operate with a patient in the lift. It can be adjusted according to the patient's weight as described below. The weight is preset to 75 kg.

Adjusting the lowering speed for manual emergency lowering

1. Locate the screw on top of the red emergency grip **A**.
2. Loosen the screw to increase the speed.
3. Tighten the screw to decrease the speed.

5.6 Charging the battery



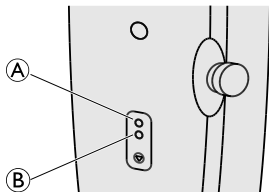
IMPORTANT!

- Make sure the emergency stop is not activated.
- Do not use the lift while charging the battery.
- Make sure that charging takes place in a room with good air ventilation.
- Do not use or move the lift without unplugging from the socket outlet after charging.
- Do not attempt to use the lift if the battery housing is damaged.
- Replace a damaged battery housing before further use.

CBJ Home control unit

The lift is equipped with an internal charger. It is recommended to charge the batteries daily to ensure optimal use of the lift and prolong the life of the batteries. Furthermore, it is recommended to charge the batteries before first use.

The control unit is equipped with a sound signal, which will beep when operating with low battery capacity. It is recommended to charge the batteries as soon as the sound signal is heard.

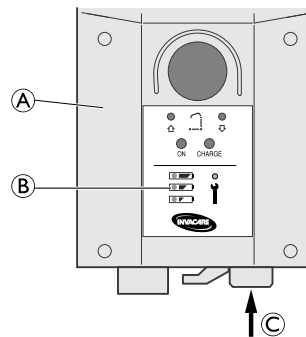


1. Connect the mains cable to the control unit and plug it in.
2. Disconnect the charger cable before using the lift again.



It takes about 4 hours to charge the batteries. The charger stops automatically when the batteries are fully charged. The upper yellow diode (A) will blink during charging, and switch to continuous light when fully charged. The lower green diode (B) will light continuously when the control unit is connected to the mains, and light up when any button on the hand control is pressed or when the electric emergency lowering is activated.

Jumbo Care control unit







The battery indicator (B) is located on the control box (A). The LEDs indicate the battery state (See following table).

1. Attach the power cord (C) to the control box.
2. Plug the power cord into a power outlet.



The battery will charge in approximately 4 hours. Charging must be done in a room with good air ventilation.

3. Disconnect the power cord from the power outlet after the battery has been fully charged.

Battery Indicator	Battery State	Description
	Full Charge	The battery is OK — no need for charging (100–50%). The third LED is GREEN.
	Partial Charge	The battery needs to be charged (50–25%). The second LED is YELLOW.
	Low Charge	The battery needs to be charged (Less than 25%). The horn beeps when a button is pressed. The first LED is YELLOW.
	Low Charge (LED blinking)	<p>The battery needs to be charged.</p> <p>Some of the functionality of the lift is lost and it is only possible to lower the boom.</p> <p>An audible alarm will sound (horn will beep) when battery is low. If the audible alarm sounds during a transfer, complete that transfer and then charge the battery.</p>

6 Lifting the Patient

6.1 Safe Lifting

**WARNING!****Risk of Injury**

The lift could tip and endanger the patient and assistants.

- Refer to the safety information and instructions in the following procedures **BEFORE** performing this procedure:
 - 6.2 Preparing to Lift, page 23
 - 6.3 Attaching the Slings to the Lift, page 25
 - 6.4 Lifting and Transferring the Patient, page 26
- Although Invacare recommends that two assistants be used for all lifting preparation, transferring from and transferring to procedures, our equipment will permit proper operation by one assistant. The use of one assistant is based on the evaluation of the health care professional for each individual case.
- **DO NOT** exceed maximum weight limitation of the patient lift. See 10 Technical data, page 40.
- **DO NOT** attempt any transfer without approval of the patient's physician, nurse or medical assistant. Thoroughly read the instructions in this User Manual, observe a trained team of experts perform the lifting procedures and then perform the entire lift procedure several times with proper supervision and a capable individual acting as a patient.

**WARNING!****Risk of injury**

The lift could tip and endanger the patient and assistants.

- During transfer, with patient suspended in a sling attached to the lift, **DO NOT** roll caster base over uneven surfaces that could cause the patient lift to tip over.
- Use steering handle on the mast at all times to push or pull the patient lift.
- Wheelchair and bed wheel locks **MUST** be in a locked position before lowering the patient into the wheelchair for transport.
- Before transferring, check that the wheelchair weight capacity can withstand the patient's weight.

6.2 Preparing to Lift

i Refer to the Safety section in this manual and review the information in 6.1 Safe Lifting, page 22 before proceeding further and observe all warnings indicated.

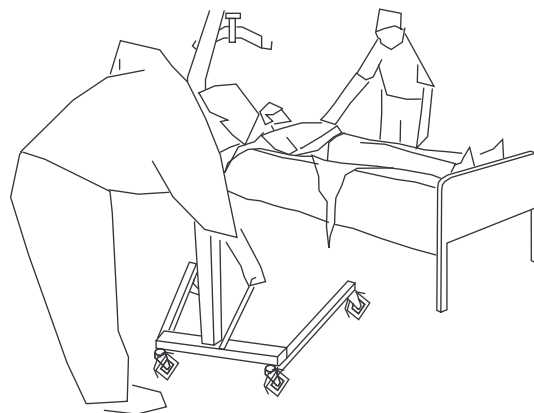
Before positioning the legs of the patient lift under a bed, make sure that the area is clear of any obstructions.



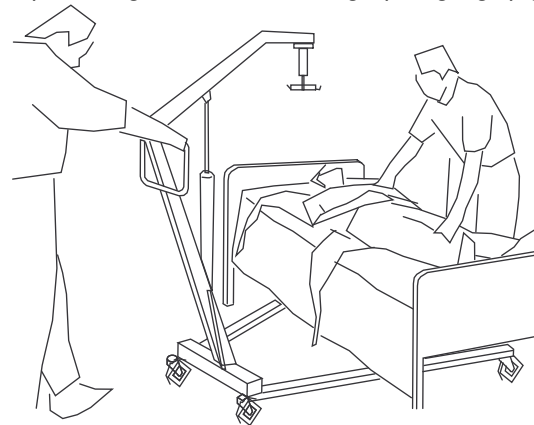
WARNING! **Risk of Injury**

The lift could tip and endanger the patient and assistants.

- The legs of the lift must be in the maximum open position for optimum stability and safety. If it is necessary to close the legs of the lift to maneuver the lift under a bed, close the legs of the lift only as long as it takes to position the lift over the patient and lift the patient off the surface of the bed. When the legs of the lift are no longer under the bed, return the legs of the lift to the maximum open position.



1. Position the patient onto the sling. Refer to your sling user manual.
2. Unlock the rear casters.
3. Open the legs. Refer to 5.3 Closing/Opening Legs, page 17.

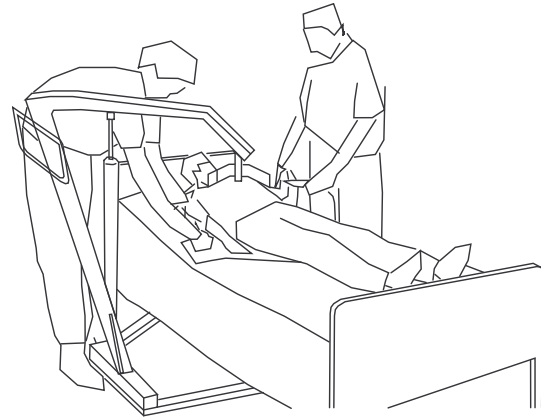


4. Use the steering handle to push the patient lift into position.



WARNING!

- When using the lift in conjunction with beds or wheelchairs, be aware of the position of the lift in relationship to those other devices so that the lift does not become entangled.



5. Lower the patient lift for easy attachment of the sling.
6. Proceed to 6.4 Lifting and Transferring the Patient, page 26.

6.3 Attaching the Slings to the Lift



WARNING!

Risk of Falling

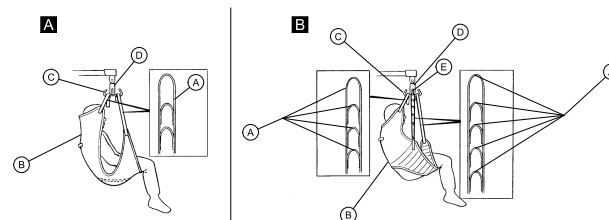
Improperly installed slings or damaged slings can cause the patient to fall or cause injury to assistants.


- Use an Invacare approved sling that is recommended by the individual's doctor, nurse or medical assistant for the comfort and safety of the individual being lifted.
- After each laundering (in accordance with instructions on the sling), inspect sling(s) for wear, tears, and loose stitching.
- Bleached, torn, cut, frayed, or broken slings are unsafe and could result in injury. Discard immediately.
- DO NOT alter slings.
- Be sure to check the sling attachments each time the sling is removed and replaced, to ensure that it is properly attached before the patient is removed from a stationary object (bed, chair or commode).



WARNING!

- If the patient is in a wheelchair, secure the wheel locks in place to prevent the chair from moving forwards or backwards.
- The hanger bar **MUST** be attached to the lift **BEFORE** attaching the sling.
- When connecting slings to the patient lift, the shortest of the straps **MUST** be at the back of patient for support. Using long section will leave little or no support for patient's back. The loops of the sling can be used to place patient in various positions. Connect both sides of the sling equally. Make sure that there is sufficient head support when lifting a patient.



 The slings may be equipped with color coded straps to assist with proper attachment.

1. Place the straps (A) of the sling (B) over hooks (C) of the hanger bar (D).
2. Match the corresponding straps on each side of the sling for an even lift of the patient.
3. Use the lift. Refer to 6.4 Lifting and Transferring the Patient, page 26.

6.4 Lifting and Transferring the Patient



WARNING!

Risk of Injury

The lift could tip and endanger the patient and assistants.

– Refer to the safety information and instructions in the following procedures **BEFORE** performing this procedure:

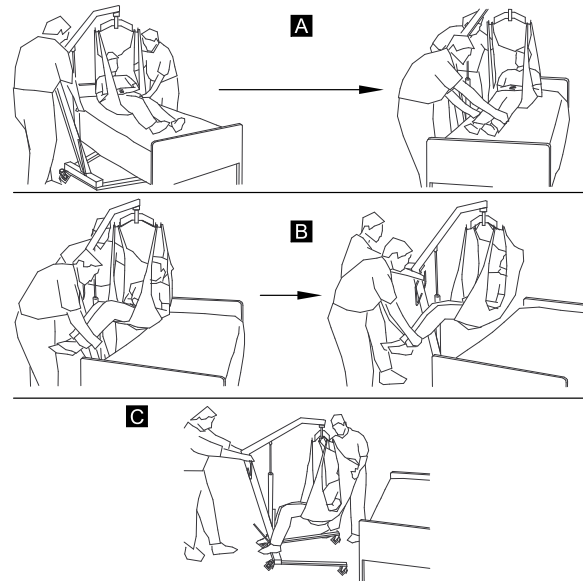
6.1 Safe Lifting, page 22

6.2 Preparing to Lift, page 23


6.3 Attaching the Slings to the Lift, page 25

5.2 Raising/Lowering the Lift, page 17

- Invacare does not recommend locking of the rear casters of the patient lift when lifting a patient.
- Invacare recommends locking the rear casters **ONLY** when positioning or removing the sling from around the patient.
- Invacare does recommend that the rear casters be left unlocked during lifting procedures to allow the patient lift to stabilize itself when the patient is initially lifted from a chair, bed or any stationary object.



1. Move the lift to the patient area and prepare to lift. Refer to 6.2 Preparing to Lift, page 23.
2. Attach the sling to the lift. Refer to 6.3 Attaching the Slings to the Lift, page 25.
3. Perform one of the following:
 - Lower the bed to the lowest position.
 - Lift the patient high enough to clear the stationary object with their weight fully supported by the lift. Refer to 5.2 Raising/Lowering the Lift, page 17.

 The boom will stay in position until the DOWN (▼) button is pressed.

**WARNING!****Risk of Injury**

An improperly attached sling could cause the patient to fall.

An improperly adjusted sling could cause injury to the patient.

- Adjustments for safety and comfort should be made before moving the patient.
- Position the patient in the sling as directed by the instructions provided with the sling.
- Use steering handle on the mast at all times to push or pull the patient lift.

4. Before moving the patient, check again to make sure that:
 - the sling is properly connected to the hooks of the hanger bar,
 - the hanger bar is firmly attached to the carabiner,
 - the safety catch of the carabiner is closed.

If any attachments are not properly in place, lower the patient back onto the stationary object and correct this problem.

5. Using the steering handle, move the lift away from the stationary object.
6. Using the handles on the sling, turn the patient so that he/she faces the assistant operating the patient lift (Detail “C”).
7. Lower the patient so that his feet rest on the base of the lift, straddling the mast.



The lower center of gravity provides stability making the patient feel more secure and the lift easier to move.

8. Move the patient lift with both hands firmly on the steering handle.



Read and understand the information that pertains to transfer to or from specific types of surfaces BEFORE performing this procedure:

- Bed Transfer, page 30
- Floor Transfers (Lifting from the Floor), page 27
- Wheelchair Transfer, page 30
- Commode Transfer Guidelines, page 29

9. Raise or lower the lift to position the patient over the stationary surface.



Be sure to raise or lower the patient enough to clear the sides of the stationary object.

10. Lower the patient onto the stationary surface.
11. Lock the rear casters.
12. Detach the sling from the hanger bar.
13. Unlock the rear casters.
14. Move the lift away from the area.

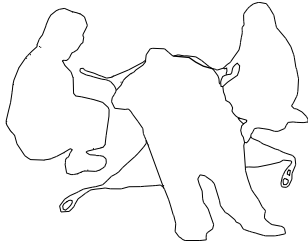
Floor Transfers (Lifting from the Floor)

Perform these steps in addition to those in 6.4 Lifting and Transferring the Patient, page 26 when transferring from the floor:

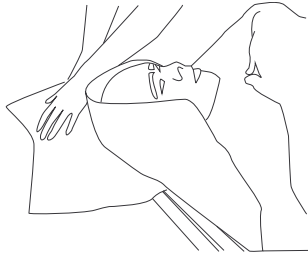
1. Determine if the patient has suffered any injuries from a fall. If no medical attention is needed, proceed with the transfer.
2. Position the sling under the patient.



Refer to the sling user manual for more information about positioning slings.

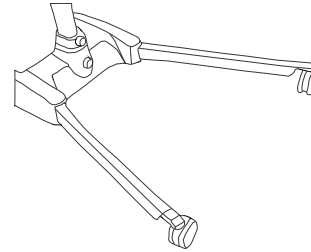


3. One assistant should have the patient bend his knees and raise his head off of the floor.

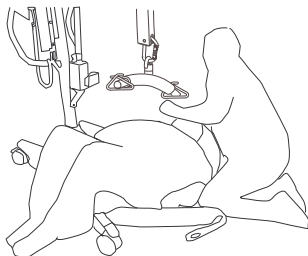
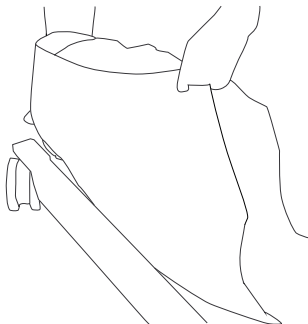


i This assistant should support the patient's head with a pillow.

4. The other assistant should open the legs of the lift.

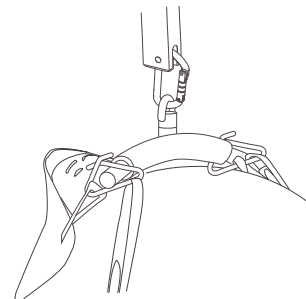


5. Position the lift with one leg under the patient's head and the other leg under the patient's bent knees.



i Keep the sling straps inside of the legs of the lift.

6. Lower the boom so the hanger bar is directly over the patient's chest.
7. Attach the sling and proceed with the transfer. Refer to 6.4 Lifting and Transferring the Patient, page 26.




Commode Transfer Guidelines

Perform these steps in addition to those in 6.4 Lifting and Transferring the Patient, page 26 when transferring to or from a commode.

- i** The slings with commode openings are designed to be used with either a commode chair or standard commode.
1. Before transferring the patient, the patient lift should be guided to the bathroom facilities to check that it can be easily maneuvered towards the commode.
 - i** The Invacare patient lift is **NOT** intended as a transport device. If the bathroom facilities are **NOT** near the bed or if the patient lift cannot be easily maneuvered towards the commode, then the patient **MUST** be transferred to a wheelchair and transported to the bathroom facilities before using the patient lift again to position the patient on a standard commode.
 2. Attach the slings to the lift. Refer to 6.3 Attaching the Slings to the Lift, page 25.

3. Elevate the patient high enough to clear the commode chair arms and have their weight supported by the patient lift. Refer to 5.2 Raising/Lowering the Lift, page 17
4. Both assistants should help guide the patient onto the commode.
5. Lower the patient onto the commode, leaving the sling attached to the hanger bar hooks.

 Invacare recommends that the sling remain connected to the hanger bar hooks during the patient's use of either the commode chair or standard commode.

6. When complete, recheck for correct sling attachment.
7. Raise the patient off of the commode.
8. When the patient is clear of the commode surface, use the steering handles to move the lift away from the commode.
9. Perform one of the following:
 - Return the patient to the bed. Reverse the procedures in:
 - 6.4 Lifting and Transferring the Patient, page 26
 - 5.2 Raising/Lowering the Lift, page 17
 - 6.3 Attaching the Slings to the Lift, page 25
 - Return the patient to a wheelchair. Refer to Wheelchair Transfer, page 30.

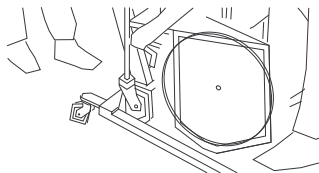
Bed Transfer

Use the following guidelines when transferring to or from a bed:

- Position the patient as far over the bed as possible.
- If patient is being transferred from a surface that is lower than the bed, press the up arrow button to raise the patient above the surface of the bed. The patient should be elevated just high enough to clear the bed with their weight fully supported by the lift.
- When the patient is clear of the bed surface, swing their feet off the bed (Detail “B”).

- After transfer, unhook the sling from all attachment points on the lift and remove the sling from around the patient.


Wheelchair Transfer



**WARNING!****Risk of Injury**

- Before transferring, check that the wheelchair weight capacity can withstand the patient's weight.
- The wheelchair wheel locks **MUST** be in a locked position before lowering the patient into the wheelchair for transport.

Perform these steps in addition to those in 6.4 Lifting and Transferring the Patient, page 26 when transferring to or from a wheelchair:

1. Engage the wheel locks of the wheelchair to prevent movement of the wheelchair.
2. Position the patient over the seat with their back against the back of the chair.
3. Begin to lower the patient.
4. With one assistant behind the chair and the other operating the patient lift, the assistant behind the chair will pull back on the grab handle (on select models) or sides of the sling to seat the patient well into the back of the chair. This will maintain a good center of balance and prevent the chair from tipping forward.
 -  Use the straps or handles on the side and the back of the sling to guide the patient's hips as far back as possible into the seat for proper positioning.

7 Maintenance

7.1 Maintenance and Safety Inspection



WARNING! **Risk of Falling**

Maintenance **MUST** be performed only by qualified personnel.

Improper assembly may cause injury or damage.

- Regular maintenance of patient lifts and accessories is necessary to assure proper operation.
- **DO NOT** overtighten the mounting hardware. This will damage the mounting bracket.

Service Interval

At normal daily operation, a service check-up should take place every year, according to the Safety Inspection Checklist. When performing annual or regular maintenance, all parts designed to carry load must be, as a minimum, tested with maximum load. All safety features must be checked according to EN ISO 10535:2006 Annex B.

LOLER Statement

The UK Health and Safety Executive's Lifting Operations and Lifting Equipment Regulations 1998, require any equipment that is used in the workplace to lift a load be subject to safety inspection on a six monthly basis. Please refer to the HSE web site for guidance www.hse.gov.uk.

The person responsible for the equipment must ensure adherence to LOLER regulations.

General Maintenance



Regular cleaning will reveal loose or worn parts, enhance smooth operation and extend the life expectancy of the lift.

Follow the maintenance procedures described in this manual to keep your patient lift in continuous service.

The Invacare® Patient Lift is designed to provide a maximum of safe, efficient and satisfactory service with minimum care and maintenance.

It is important to inspect all stressed parts, such as slings, hanger bar and any pivot points for signs of wear, cracking, fraying, deformation or deterioration. All parts of the Invacare® patient lift are made of the best grades of steel, but metal to metal contact will wear after considerable use. Replace any defective parts immediately and ensure that the lift is not used until repairs are made. Refer to the Safety Inspection Checklist for specific information regarding wear items.

There is no adjustment or maintenance of either the casters or brakes, other than cleaning, lubrication and checking axle and swivel bolts for tightness. Remove all debris, etc. from the wheel and swivel bearings. If any parts are worn, replace these parts immediately.

If you question the safety of any part of the lift, contact your Dealer or Invacare® representative immediately and advise him/her of your problem.

Daily Inspections

The patient lift should be checked each time it is used. Perform the following checks in addition to those listed in the Safety Inspection Checklist. If you question the safety of any part of the lift, do not use. Contact your Dealer or Invacare® representative immediately.

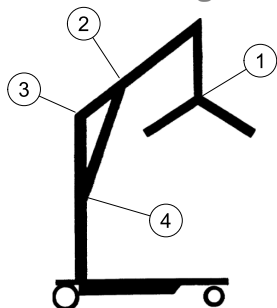
- Visually inspect the patient lift. Check all parts for external damage or wear. If damage is found, do not use. Contact your Dealer or Invacare® representative immediately.
- Check the emergency lowering function (both electrical and/or mechanical). Check all parts for external damage or wear. If damage is found, do not use. Contact your Dealer or Invacare® representative immediately.
- Check that all hardware and attachment points for damage or wear. Check all parts for external damage or wear. If damage is found, do not use. Contact your Dealer or Invacare® representative immediately.
- Verify that the hand control is functional (lifting and leg movements).
- Charge the battery every day the lift is used.
- Check the emergency stop function.

Safety inspection checklist

A person who is suitably and properly qualified and well acquainted with the design, use and care of the lift should perform periodic inspections.

Date of Inspection:		Initials:
<p>THE CASTER BASE</p> <ul style="list-style-type: none"> <input type="checkbox"/> Inspect for missing hardware. <input type="checkbox"/> Base opens/closes with ease. <input type="checkbox"/> Inspect casters and axle bolts for tightness. <input type="checkbox"/> Inspect casters for smooth swivel and roll. <input type="checkbox"/> Inspect and clear wheels of debris. <input type="checkbox"/> Inspect pivot joints for wear. 	<p>THE BOOM</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check all hardware and hanger bar supports. <input type="checkbox"/> Inspect for bends or deflections. <input type="checkbox"/> Inspect bolted joints of boom for wear. <input type="checkbox"/> Inspect to ensure that the boom is centered between the base legs. <input type="checkbox"/> Check the mast pivot bolt. Ensure that the bolt is tightly secured. <input type="checkbox"/> Inspect pivot joints for wear. 	<p>THE HANGER BAR</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check the bolt/hooks for wear or damage. <input type="checkbox"/> Check sling hooks for wear or deflection. <input type="checkbox"/> Inspect pivot joints for wear. <input type="checkbox"/> Check the carabiner for wear at contact points. Refer to 7.5 Checking the carabiner and its mounting, page 36 <input type="checkbox"/> Check the welded pin that is carrying the carabiner at the boom. Refer to 7.5 Checking the carabiner and its mounting, page 36
<p>SLINGS AND HARDWARE</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check all sling attachments each time it is used to ensure proper connection and patient safety. <input type="checkbox"/> Inspect sling material for wear. <input type="checkbox"/> Inspect straps for wear. <input type="checkbox"/> Inspect stitching. 	<p>THE MAST</p> <ul style="list-style-type: none"> <input type="checkbox"/> Mast must be securely assembled to boom. <input type="checkbox"/> Inspect for bends or deflections. <input type="checkbox"/> Inspect pivot joints for wear. 	
<p>THE ELECTRIC ACTUATOR ASSEMBLY</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check for leakage. <input type="checkbox"/> Inspect hardware on mast, boom and base. <input type="checkbox"/> Check for wear or deterioration. If damaged, return to factory. <input type="checkbox"/> Cycle to ensure smooth quiet operation of the electric actuator. 	<p>CLEANING</p> <ul style="list-style-type: none"> <input type="checkbox"/> Whenever necessary. 	

7.2 Lubricating the Lift



The Invacare lift is designed for minimum maintenance. However, a six month check and lubrication should ensure continued safety and reliability.

Keep lift and slings clean and in good working order. Any defect should be noted and reported to your Dealer or Invacare representative as soon as possible.

Refer to the figure for lubrication points. Lubricate all pivot points with a light grease (waterproof auto lubricant). Wipe all excess lubricant from lift surface.

1. Hanger Bar
2. Boom Mounting Bracket
3. Boom/Mast Mount
4. Mast Mounting Bracket

7.3 Cleaning the Sling and Lift

Cleaning the Sling

Refer to the washing instructions on the sling and to the sling manual for cleaning details.

Cleaning and Disinfecting the Lift

To prevent cross-infection, the hoist must be cleaned and disinfected after each use.

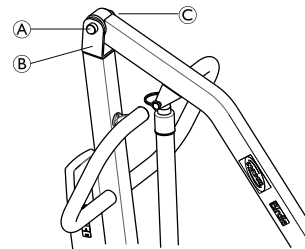
A soft cloth, dampened with water and a small amount of mild detergent, is all that is needed to clean the patient lift. The lift can be cleaned with non-abrasive cleaners.

Never use acids, alkaline or solvents for cleaning the lift. Dry the lift carefully after cleaning.

Motors, control unit and mounting parts can be damaged if the lift is cleaned any other way than stated above.

The lift must be wiped with a moistened, firmly wrung cloth with ordinary household disinfectants. Only use disinfection detergents approved by the facility.

7.4 Checking and Tightening Mast Pivot Bolt



1. Check that the bolt **A** is through the bracket **B** and the locknut **C** is tight and secure.
2. If needed, do one or more of the following:
 - Tighten locknut and back-off the locknut 1/8 of a turn.
 - Replace the locknut.

7.5 Checking the carabiner and its mounting



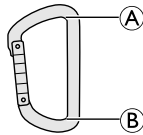
WARNING!

Risk of Injury

Worn or damaged parts of the lift may cause injury to the patient or assistants.

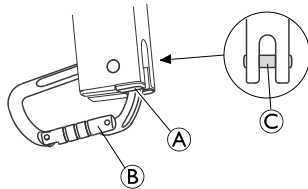
- After the first year of use, the hooks of the hanger bar and mounting brackets of the boom should be inspected every six months to determine the extent of wear. Check for signs of cracking, fraying, deformation or deterioration. If these parts become worn, replacement must be made.

Checking the carabiner



1. Check the carabiner for wear at contact points **A** and **B**. Do not use the lift if the carabiner measures less than 6 mm at these points.

Checking the boom pin



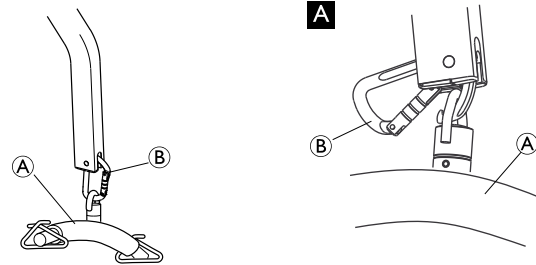
1. Remove plastic part **A**.
2. Turn carabiner **B** up to see the welded pin **C**.

3. Check the pin **C** for wear. Do not use the lift if the pin measures less than 7 mm.
4. Insert the plastic part again.

7.6 Replacing the Hanger Bar



If the scale is installed on the lift, refer to the scale instruction manual to replace the hanger bar.



1. Support the hanger bar **A** with one hand.
2. Open the carabiner **B** with the other hand (Detail A).
3. Remove the hanger bar from the carabiner.
4. Reverse STEPS 1- 3 to install the new hanger bar.
5. Check that the hanger bar is firmly attached to the carabiner. The gate of the carabiner must be closed after the hanger bar is mounted.

8 After Use

8.1 Transportation and Storage

During transportation, or when the patient lift is not to be used for some time, the emergency stop button should be pushed in. Refer to 5.4 Performing an Emergency Stop, page 18.

The patient lift must be stored at normal room temperature. If it is stored in a damp, cold or wet environment then the motor and other mounting parts may be prone to corrosion.

For transportation and storage condition information, refer to 10.4 Environmental conditions, page 42.

8.2 Disposal



WARNING!

Environmental Hazard

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE.

Device contains lead acid batteries.

This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

- DO NOT dispose of batteries in normal household waste. They MUST be taken to a proper disposal site. Contact your local waste management company for information.
- Please be environmentally responsible and recycle this product through your recycling facility at its end of life.

8.3 Reuse

This product is suitable for reuse. The maximum number of times it can be reused is dependent upon product condition. To prevent the transmission of infection, the patient lift and slings must be cleaned after each use. Before reuse or refurbishment of the lift, refer to 7.3 Cleaning the Sling and Lift, page 35. Always provide the user manual with the reused or refurbished lift.

9 Troubleshooting

9.1 Identifying and repairing faults


WARNING!

– Only personnel having received the necessary instruction or training by Invacare® must perform service and maintenance on Birdie™ and Birdie™ Compact.

Symptoms	Faults	Solution
Patient lift feels loose.	Mast/Base joint loose.	Refer to 4.2 Assembling the Mast to the Base, page 13.
	Tie - Rods are loose.	Contact your Dealer or Invacare representative.
Casters/Brakes noisy or stiff.	Fluff or debris in bearings.	Clean casters from fluff and debris.
Noisy or dry sound from pivots.	Needs lubrication.	Refer to 7.2 Lubricating the Lift, page 35.
Electric actuator fails to lift or legs fail to open when button is pressed.	Hand-control or actuator connector loose.	Connect hand control or actuator connector. Ensure connectors are seated properly and fully connected.
	Battery low.	Charge batteries. Refer to 5.6 Charging the battery, page 20.
	RED emergency stop button pressed IN.	Rotate RED emergency stop button CLOCKWISE until it pops out.
	Battery not connected properly to control box.	Reconnect the battery to the control box. Refer to 5.6 Charging the battery, page 20.

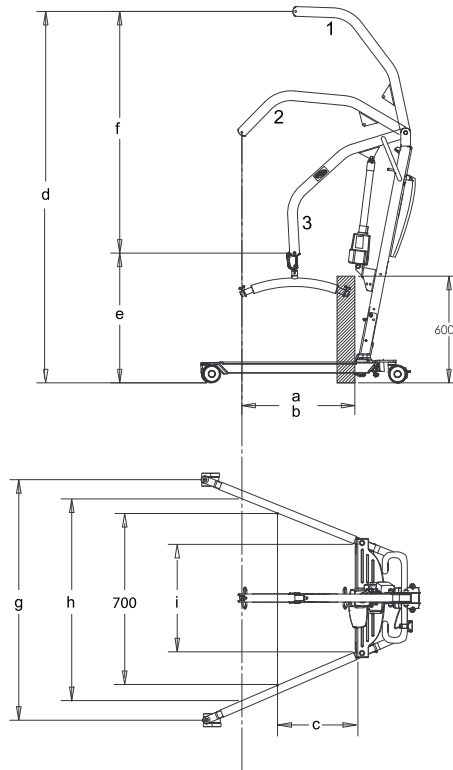
Symptoms	Faults	Solution
	The connecting terminals are damaged.	Replace the battery pack. Refer to 5.6 Charging the battery, page 20.
	Boom or leg actuator in need of service or load is too high.	Contact your Dealer or Invacare representative.
Unusual noise from actuator.	Actuator is worn or damaged or spindle is bent.	Contact your Dealer or Invacare representative.
Boom will not lower in uppermost position.	Boom requires a minimum weight load to lower from the uppermost position.	Pull down slightly on the boom.
Boom will not lower during a power retraction.	Shoulder bolt at the junction of the boom and mast may not be properly installed.	Refer to 7.4 Checking and Tightening Mast Pivot Bolt, page 35.
The control unit emits a beeping sound during lifting, and the motor stops.	Max. load is exceeded	Reduce the load (and the lift will function normally)



Contact your dealer if the above does not solve your problems.

10 Technical data


10.1 Dimensions and weight



Dimensions			
	[mm]		
		Birdie™	Birdie™ Compact
Front / rear castor diameter	75	75	75
Lowest position / CSP* min. height (e)	655	730	730
Lifting area / height range	465 – 1685	515 – 1585	515 – 1585
CSP* max. height (d)	1890	1800	1800
Leg length	1150	1000	1000
Minimum internal width (i)	580	460	460
Total width (closed), external measure	655	530	530
Internal width at maximum reach (h)	910	780	780
Total width (open) internal measure	1040	890	890
Total width (open) centre to centre of castor (g)	1085	930	930
Turning radius	1400	1070	1070
Height to upper edge of legs	100	100	100
Min. free height	20	20	20



Min. space for patient in top position	340	300
Max. reach at 600 mm (a)	665	545
Max. reach from base (b)	665	545
Reach from base with legs spread to 700 mm (c)	240	415
Lifting range (f)	1235	1070

* CSP = Central Suspension Point

 All measures are taken with 75 mm casters. For 100 mm casters add 15 mm for height measures and 20 mm for width.

Weights		
[kg]	Birdie™	Birdie™ Compact
Maximum lifting capacity	180	150
Total weight incl. hanger bar	42	36
Weight, mast, incl. battery, excl. hanger bar	21	17.5
Weight leg section	19	16.5

10.2 Electrical system

	Birdie™	Birdie™ Compact
Voltage output	24 V DC, max. 250 VA	
Voltage supply	100 – 240 V AC, 50/60 Hz	
Maximum current input	Max. 200 mA	
Protection class (entire device)	IPX4	
Insulation class 	Class II equipment	
	Type B applied part Applied part complying with the specified requirements for protection against electrical shock according to IEC60601-1.	
Sound level	45 – 50 dB (A)	
Working ability	40 full lifts without battery charge with batteries at 50% of full capacity	
Intermittent (periodic motor operation)	10%, max. 2 min. / 18 min.	
Battery capacity	2.9 Ah	
Manual emergency lowering	Yes	No
Electric emergency lowering / lifting	Yes/No	Yes/No

10.3 Electromagnetic compliance (EMC) information

Medical Electrical Equipment needs to be installed and used according to the EMC information in this manual.

This equipment has been tested and found to comply with EMC limits specified by IEC/EN 60601-1-2 for Class B equipment.

Portable and mobile RF communications equipment can affect the operation of this equipment.

Other devices may experience interference from even the low levels of electromagnetic emissions permitted by the above standard. To determine if the emissions from the lift is causing the interference, run and stop running the lift. If the interference with the other device operation stops, then the lift is causing the interference. In such rare cases, interference may be reduced or corrected by the following:

- Reposition, relocate, or increase the separation between the devices.

Contact Invacare for any additional EMC information or EMC tables for the device environment.

10.4 Environmental conditions

	Storage and transportation	Operation
Temperature	-10°C to +50°C	+5°C to +40°C
Relative humidity	20% to 75%	20% to 90% at 30°C, not condensing
Atmospheric pressure	700 hPa to 1060 hPa	

10.5 Materials

Component	Material
Base, legs, mast and boom	Steel, powder coated
Hanger bar	Steel, powder coated and foam
Actuator housing, hand control, mast protector, casters and other plastic parts	material according to marking (PA, PP, PE)
Bolts and nuts	Steel, rust protected, zinc-plated

Notes

Invacare Sales

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1575025-A 2013-11-20



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