WARNING
DO NOT OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL. IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS, CAUTIONS AND INSTRUCTIONS; CONTACT A HEALTHCARE PROFESSIONAL (DOCTOR-THERAPIST) BEFORE ATTEMPTING TO USE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.

RADIO FREQUENCY INTERFERENCE
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 EMERGENCY STOP BUTTON DOWN (↓) IMMEDIATELY. DO NOT disengage the Emergency Stop Button while transmission is in progress.

MAINTENANCE
Maintenance MUST be performed ONLY by qualified personnel.

WARNING notices as used in this manual apply to hazards or unsafe practices which could result in serious bodily harm.

CAUTION notices as used in this manual apply to hazards or unsafe practices which could result in minor personal injury or property damage.

NOTES highlight procedures and contain information which assist the operator in understanding the information contained in this manual.

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

SAVE THESE INSTRUCTIONS
AND
KEEP WITH PATIENT LIFT AT ALL TIMES.
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**INVACARE**

We build trust.

3
SAFETY SUMMARY

WARNING

Check all parts for shipping damage before using. In case of damage, DO NOT use the equipment. Contact the Dealer for further instructions.

The Invacare 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). Moving a person suspended in a sling over ANY distance is NOT recommended.

DO NOT attempt any transfer without approval of the patient’s physician, nurse or medical assistant. Thoroughly read the instructions in this Owner’s 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 restraint straps if necessary.

Invacare slings and patient lift accessories are specifically designed to be used in conjunction with Invacare patient lifts. Slings and accessories designed by other manufacturers are not to be utilized as a component of Invacare’s patient lift system. Use of these products is prohibited and will void Invacare’s patient lift warranty. Use only genuine Invacare slings and lift accessories to maintain patient safety and product utility.

Use a sling that is recommended by the individual's doctor, nurse or medical assistant for the comfort and safety of the individual being lifted.

DO NOT use any kind of plastic back incontinence pad or seating cushion between the patient and sling material that may cause the patient to slide out of the sling during transferring.

When using an adjustable base lift, the legs MUST BE in the maximum OPENED/LOCKED position BEFORE lifting the patient.

Before transferring a patient from a stationary object (wheelchair, commode or bed), slightly raise the patient off the stationary object and check that all sling attachments are secure. If any attachment is not correct, lower the patient and correct the problem, then raise the patient and check again.

During transfer, with patient suspended in a sling attached to the lift, DO NOT roll caster base over objects such as carpet, raised carpet bindings, door frames, or any uneven surfaces or obstacles that would create an imbalance of the patient lift and could cause the patient lift to tip over. Use steering handles on the mast at ALL times to push or pull the patient lift.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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.

After the first 12 months of operation, inspect the swivel bar and the eye of the boom (to which it attaches) for wear. If the metal is worn, the parts MUST BE replaced. Make this inspection every three (3) months thereafter.

The hydraulic/electric pump is sealed at the factory and if service is required, the pump unit MUST BE returned to the factory for repair. DO NOT attempt to open the hydraulic/electric pump or obtain local service as this will VOID the warranty and may result in damage and a costly repair. Consult your Dealer or Invacare for further information.

Casters and axle bolts require inspection every six (6) months to check for tightness and wear.

Regular maintenance of patient lifts and accessories is necessary to assure proper operation.

DO NOT exceed maximum weight limitation of the patient lift. The suggested weight limitation will vary from 300 lbs. for the Electric Lift to 375 lbs. for the Manual (Hydraulic) Lift depending on the type of patient lift purchased.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>9700 Manual / Hydraulic</th>
<th>9701 Electric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height at Sling Hook-up- MAX.:</td>
<td>67.5-inches</td>
<td>66-inches</td>
</tr>
<tr>
<td>Height at Sling Hook-up- MIN.:</td>
<td>18.5-inches</td>
<td>17-inches</td>
</tr>
<tr>
<td>Base Width OPEN:</td>
<td>42.0-inches</td>
<td>42.0-inches</td>
</tr>
<tr>
<td>Base Width CLOSED:</td>
<td>24.5-inches</td>
<td>24.5-inches</td>
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<tr>
<td>Base Height (Clearance):</td>
<td>3.5-inches</td>
<td>3.5-inches</td>
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<tr>
<td>Base Length:</td>
<td>42.0-inches</td>
<td>42.0-inches</td>
</tr>
<tr>
<td>Caster Size (FRONT/REAR):</td>
<td>2.0-inches/5.0-inches</td>
<td>2.0-inches/5.0-inches</td>
</tr>
<tr>
<td>Folded Height:</td>
<td>16.5-inches</td>
<td>16.5-inches</td>
</tr>
<tr>
<td>Sling Options:</td>
<td>3-Styles</td>
<td>3-Styles</td>
</tr>
<tr>
<td>Weight Capacity:</td>
<td>375 lbs.</td>
<td>300 lbs.</td>
</tr>
<tr>
<td>Weight IN Carton:</td>
<td>96 lbs.</td>
<td>92 lbs.</td>
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<tr>
<td>Weight OUT of Carton:</td>
<td>78 lbs.</td>
<td>79 lbs.</td>
</tr>
<tr>
<td>Battery:</td>
<td>N/A</td>
<td>2-12V Rechargeable Sealed</td>
</tr>
<tr>
<td>Charger Input:</td>
<td>N/A</td>
<td>120V AC</td>
</tr>
<tr>
<td>Charger Output:</td>
<td>N/A</td>
<td>24V DC</td>
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<td>Accessories:</td>
<td>Digital Scale, Quick Fold Kit</td>
<td>Digital Scale, Quick Fold Kit</td>
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<td>Audible Low Battery Alarm:</td>
<td>N/A</td>
<td>When Recharging Needed</td>
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<td>Motor Safety Devices:</td>
<td>N/A</td>
<td>Automatic Stop Button</td>
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<td>* Approx. Lifts per Charge:</td>
<td>N/A</td>
<td>60 to 100</td>
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<tr>
<td>Warranty Pump/Electronics:</td>
<td>1 Year</td>
<td>1 Year</td>
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NOTE: 9700K Electric Conversion Kit has the same specifications as 9701. Kit includes actuator, battery with bracket, remote control unit, recharging unit and attachment hardware.

* Varies dependent upon load and stroke.

### SLINGS

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<th>9746 Hammock</th>
<th>9747 Hammock w/Commode</th>
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<tr>
<td>Overall Length:</td>
<td>25-inches Back 27-inches Leg</td>
<td>50-inches</td>
<td>50-inches</td>
</tr>
<tr>
<td>Overall Width:</td>
<td>41-inches</td>
<td>40-inches</td>
<td>40-inches</td>
</tr>
<tr>
<td>Commode Opening:</td>
<td>N/A</td>
<td>N/A</td>
<td>6-inches Wide x 12-inches Long</td>
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Accessories: 9732 Digital Scale Bracket ONLY. 9770 Easy-Store Kit (Pin and Ring Assembly for quickly Disassembling Lift WITHOUT Tools).
**FEATURES**

**MANUAL / HYDRAULIC LIFT (FIGURE 1)**

Manual / Hydraulic weight limitation is 375 lbs.

Mast bolts into base. Can be separated for storage.

Operation optimizes lift capabilities. Requires less physical effort for raising patient.

Offset mast and boom style provides better lift path. Maximizes full travel range.

Pump handle can rotate from side-to-side for convenience of assistant.

**Range:** 49.0 - inches of range allows the patient to be picked up from a lying position on floor.

**ELECTRIC LIFT (FIGURE 2)**

Electric lift weight limitation is 300 lbs.

Mast bolts into base. Can be separated for storage.

Operation optimizes lift capabilities. Requires less physical effort for raising patient.

Offset mast and boom style provides better lift path. Maximizes full travel range.

Hand control with elongated cord for convenience of assistant.

**Range:** 49.0 - inches of range allows the patient to be picked up from a lying position on floor.

---

**FIGURE 1 - MANUAL/HYDRAULIC LIFT**

**FIGURE 2 - ELECTRIC LIFT**
PATIENT SLINGS

**WARNING**
Use a sling that is recommended by the individual’s doctor, nurse or medical assistant for the comfort and safety of the individual being lifted.

Patient slings work in conjunction with lifts to support the patient during lifting and transferring procedures.

Slings attach to the lift by using the sewn-in hook-on points. Slings are adjustable.

Each sling offers reinforcing at each hook-on point to ensure patient safety.

Each sling is constructed of durable materials which resist deterioration from exposure to moisture or laundering.

**Model No. 9746 Hammock and Model No. 9747 Hammock w/Commode Opening (FIGURE 3)**

**NOTE:** Both slings have a headrest.

The one-piece contour slings can be used on heavy or light patients. Supports patient from head to the knees. Used for weighing, transferring or to simplify the use of restroom facilities.

**Model No. 9742 Universal Deluxe Sling (FIGURE 4)**

Divided leg design is best suited for high level spinal cord injuries or patients which sling removal is more difficult. Support ranges from the upper back to beneath the thighs. Can be positioned with patient seated. Greatly simplifies the use of restroom facilities.

**FIGURE 4 - MODEL NO. 9742 UNIVERSAL DELUXE SLING**

**ACCESSORIES**

**Model 9833 Weight Module (Digital Scale) and Adapter Bracket**

375 lbs. Capacity
Accurate within 0.25 grams
Measures 4.5-inches (Height)

**NOTE:** Refer to Accessories Section in the back of this manual for correct operation of the Model 9833 Digital Scale.
SHIPPING AND TRANSPORTATION INSTRUCTIONS (FIGURE 1)

If the Patient Lift is to be reshipped by common carrier, it should be packed in the same carton. Extra cartons are available from Invacare.

Unpacking
1. Check for any obvious damage to the carton or its contents. If damage is evident, notify your Invacare Dealer/Carrier.
2. Remove all loose packing from the carton.
3. Carefully remove all the components from the carton.

NOTE: Unless the Patient Lift is to be used immediately, retain boxes, containers and packing material for use in storing until use of the patient lift is required.

Inspection
1. Examine exterior of the Patient Lift for nicks, dents, scratches or damages. Inspect all components.

Storage
1. Store the packaged Patient Lift in a dry area.
2. DO NOT place other objects on top of the packaged Patient Lift.
ASSEMBLY OF THE PATIENT LIFT

WARNING
Use ONLY Invacare parts in the assembly of this patient lift. The base legs, the mast, boom, pump assembly and the swivel bar are manufactured to specifications that assure correct alignment of all parts for safe functional operation.

Unpacking the Patient Lift
1. Unpack the components from the shipping carton.
2. Cut the tie-wraps that secure swivel bar to the base and the pump assembly to the mast (FIGURE 1).

Assembling the Mast to the Base
1. Lock casters (FIGURE 2).
2. Remove the covers, pivot bolt, nut and washers, located at the base of the mast (FIGURE 3).
3. Position the mast bushings into the U-shaped cut-out of the base while pushing the mast into an upright position (FIGURE 4).
4. Insert pivot bolt with washers through the base and mast bushing. Secure with nut (FIGURE 4).
5. Align adjustment knob flush with the lip of the U-shaped cut-out of the base (FIGURE 4).

NOTE: This will prevent the mast from disengaging from the base.

WARNING
The mast may be removed from the base for storage or transporting. Each time the mast is removed and returned to the base, the mast MUST be properly secured to the base assembly.
Assembling the Manual / Hydraulic Pump to the Boom (FIGURE 5)

1. Remove the covers, bolt, and nut from the mounting bracket on the boom assembly.
2. Unpack the plastic bushing from the patient lift carton.
3. Lift-up on the boom and place it on your left shoulder.
4. Let the hydraulic pump rest on the right-side of your chest and rotate the shaft extension of the hydraulic pump assembly until it lines-up with the mounting bracket holes in the boom assembly.
5. Turn the plastic bushing 90° and place over the shaft extension of the hydraulic pump.
6. Align the holes of the boom assembly mounting bracket with those of the hydraulic pump and insert the bolt. Secure with nut.

NOTE: Be sure that the bolt is completely through the holes of the boom assembly mounting bracket and the manual / hydraulic pump assembly. The boom assembly will pivot easily if the mounting hardware is aligned properly when the boom assembly is secured and bolted.

CAUTION
DO NOT overtighten the nut and bolt and bend the mounting bracket.

WARNING
There are two (2) silver plugs in the mounting holes next to the hydraulic pump mounting bracket on the boom. DO NOT remove these silver plugs and use these holes at anytime or injury to the patient and/or assistant may occur (FIGURE 5).

Assembling the Electric Actuator to the Boom (FIGURE 6)

1. Remove the covers, bolt, and nut from the mounting bracket on the boom assembly.
2. Unpack the plastic bushing from the patient lift carton.
3. Lift-up on the boom and place it on your left shoulder.
4. Let the actuator rest on your right-side of your chest and rotate the shaft extension of the actuator assembly until it lines-up with the mounting holes in the boom assembly.
5. Place the plastic bushing over the shaft extension of the actuator.

NOTE: The bottom of the electric actuator assembly will already be assembled to the mast mounting bracket.
WARNING
There are two (2) silver plugs in the mounting holes next to the actuator mounting bracket on the boom. DO NOT remove these silver plugs and use these holes at anytime or injury to the patient and/or assistant may occur (FIGURE 6).

6. Align the holes of the boom assembly mounting bracket with those of the actuator and insert the bolt. Secure with nut.

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

CAUTION
DO NOT overtighten the nut and bolt and bend the mounting bracket.

NOTE: The bottom of the actuator assembly will already be assembled to the mast mounting bracket.

FIGURE 6 - ASSEMBLING THE ELECTRIC ACTUATOR TO THE BOOM

Shifter Handle Installation (FIGURE 7)

1. Remove the shifter handle from the packaging carton.

2. Press down on the release button on the shifter handle mounting tube and insert the shifter handle over the release button until the shifter handle locks in place. (Button MUST be protruding from the opening in the shifter handle (FIGURE 7).
CONVERSION FROM A MANUAL TO AN ELECTRIC LIFT

DISASSEMBLY / ASSEMBLY

Removing the Manual / Hydraulic Pump Assembly (FIGURE 1)

1. Raise the lift so the boom is resting on your left shoulder.
2. Remove the covers, bolt, nut and plastic bushing from the hydraulic pump mounting bracket on the boom assembly.
3. Lower the boom and pump assemblies until they rest on the floor.
4. Remove the covers, bolt, nut, washers and spacer from the mounting bracket on the mast assembly.

WARNING
There are two (2) silver plugs in the mounting holes next to the electric actuator mounting bracket on the boom. DO NOT remove these silver plugs and use these holes at anytime or injury to the patient and/or assistant may occur (FIGURE 2).

5. Align the holes of the boom assembly mounting bracket with those of the electric actuator and insert the bolt. Secure with nut.

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

CAUTION
DO NOT overtighten the nut and bolt and bend the mounting bracket.

Assembly of the Electric Actuator (FIGURE 2)

1. With the boom resting on the ground, attach the bottom part of the actuator assembly to the mast mounting bracket using bolt, washers, spacer, nut and covers.
2. Lift-up on the boom and place it on your left shoulder.
3. Let the actuator rest on the right-side of your chest and rotate the shaft extension of the actuator assembly until it lines-up with the mounting bracket holes in the boom assembly.

CAUTION
DO NOT use for mounting.

4. Place the plastic bushing over the shaft extension of the electric actuator.
Attaching the Control Box to the Mast (FIGURE 3)

NOTE: When positioning the control box on the mast, make sure there is enough clearance between the Emergency Stop Button and the bottom of the steering handle to be able to engage and disengage the Emergency Stop Button.

1. Standing behind the lift, hold the control box against the right-side of the mast.
2. Place the U-bolts around the left-side of the mast and through the control box mounting holes.
3. Secure with washers and nuts.
4. Plug the cables from the actuator assembly and hand control into the control box.

Battery Charging

WARNING
NEVER use or move the patient lift while battery is being charged.

NOTE: Ensure batteries are regularly charged, preferably EVERY NIGHT. This will prolong their life and maintain peak performance.

The battery charger is fully automatic and can be connected to the lift at any time, OTHER THAN WHEN LIFT IS IN USE. It is recommended that the lift charging take place in a well ventilated dry room. This should be EVERY NIGHT and/or when the audible alarm sounds during operation. The battery charger has a round output plug which is plugged into the patient lift hand-control.

The RED emergency stop button, mounted on the top of control box MUST be DISENGAGED (rotated CLOCKWISE until fully out) during charging (FIGURE 4).

CAUTION

It is important to ensure that both input and output plugs are correctly inserted before connection of power. If the patient lift is charged with any other type of charger, it is possible to irreparably damage the batteries.

The charger automatically stops charging when the batteries are fully charged; therefore, it is perfectly safe to leave the patient lift on charge whenever it is not being used to ensure peak performance.
ONE-PIECE CONTOUR SLINGS

MODEL NO. 9746 - HAMMOCK AND
MODEL NO. 9747 - HAMMOCK W/COMMODE
OPENING (FIGURE 1)

Invacare slings are designed specifically for use with Invacare Patient Lifts and made to support the patient during lift and transfer procedures. Slings attach to the lift with color coded straps for easy positioning. The slings are reinforced at all points of attachment for safety. The fabrics used in these slings are of very durable materials that resist deterioration from exposure to moisture and laundering. This design will accommodate patients of heavy or light weight with full support from the head to the knees. It is particularly good for users with only moderate upper body strength, for bathing or for those remaining in the sling for extended periods of time.

Fabric
The outer side has a reinforced "grab handle" for assistance in positioning the patient in a wheelchair, commode, etc. The edging is soft yet durable with extra reinforced stitching for safety.

NOTE: Always place the sling under the patient with the handle away from the patient.

NOTE: Laundering should always be done with dark colors. Refer to tagged washing instructions on the sling.

Open mesh polyester fabric is an exceptional material that provides safety and comfort for the patient. The open mesh weave of the fabric is dyed blue or teal, preshrunk, and durable for use and laundering. It provides considerable traction to resist slipping and sliding during use.

Body
Slings may be ordered at the time of purchase with a commode opening in the seat section for use over a toilet or a commode chair. Slings are constructed with a high back section that provides additional support for the head and neck.

FIGURE 1 - MODEL NO. 9746 HAMMOCK AND
MODEL NO. 9747 HAMMOCK w/COMMODE
OPENING SLINGS
ONE-PIECE CONTOUR SLINGS (Cont.)

Positioning the Model No. 9746 Hammock or Model No. 9747 Hammock w/Commode Opening (FIGURE 2)

1. Position the patient in the center of the bed and laying flat on his/her back.
2. Fold the sling in half (length-wise) and place the sling beside the patient.

NOTE: The closed-end or commode opening of the sling with positioning handle should be facing the patient when folded.

3. The top edge of the sling fabric should be slightly above the patient’s head.
4. The bottom edge of the sling fabric should then be a few inches above the back of the patient’s knees.

NOTE: Invacare recommends that two (2) assistants (One [1] on each side of the bed) be used when positioning the patient on a sling. The bed rails may also be raised to minimize patient movement.

5. With one (1) assistant holding the patient, the second assistant pushes the folded sling under the patient without rolling him/her over.

Positioning the Patient on the Sling with or without Commode Opening

NOTE: Use the following method to easily move the patient and avoid strain to yourself.

1. If the patient is to roll to their LEFT-SIDE, then elevate the patient’s RIGHT KNEE until the right foot is flat on the bed (FIGURE 3).
NOTE: Invacare recommends that two (2) assistants (One [1] on each side of the bed) be used when positioning the patient onto a sling.

2. With an assistant on each side of the bed and up against the mattress, the assistant on the left-hand side of the bed will position his/her RIGHT-HAND on the elevated KNEE and his/her LEFT-HAND under the patient’s RIGHT SHOULDER, slowly push on the knee and assist with a slight lift of the shoulder. The patient will easily roll onto their side (FIGURE 3).

3. With the patient on their side, push the fabrics of the seat and back gently under them (FIGURE 3).

NOTE: The patient’s head should be positioned in the headrest just below the top edge for maximum comfort and the lower edge of the seat section positioned a few inches above the back of the patient’s knees (FIGURE 2).

4. Roll the patient on to his/her back (FIGURE 4).

NOTE: Assistants will reverse roles.

5. After the patient has been positioned once again on his/her back, you now need to roll the patient to their RIGHT-SIDE (facing the assistant on the LEFT).

6. With an assistant on each side of the bed and up against the mattress, the assistant on the right-hand side of the bed will elevate the LEFT KNEE and position his/her LEFT-HAND on the elevated KNEE and his/her RIGHT-HAND under the patient’s LEFT SHOULDER, slowly push on the knee and assist with a slight lift of the shoulder and the patient will easily roll onto their side (FIGURE 4).

7. Pull the fabrics of the seat and back across the mattress until they are smooth (FIGURE 4).

8. Roll the patient onto their back and they should be approximately centered on the sling section (FIGURE 4).

9. Attach the sling to the hooks of the swivel bar. Refer to Attaching the Slings to the Patient Lift in LIFTING THE PATIENT Section of this manual.
Positioning the Patient in the Model No. 9742 Universal Deluxe Sling

NOTE: Headrest is not available on the Model No. 9742 Universal Deluxe Sling.

NOTE: Invacare recommends that two (2) assistants (one [1] in front and one [1] in back of the wheelchair) be used when positioning the patient in the universal deluxe sling.

NOTE: Use the following method to easily move the patient and avoid strain to yourself.

**WARNING**

If the patient is in a wheelchair, secure the wheel locks in place to prevent the chair from moving forward or backwards.

1. The rear wheel locks of the wheelchair are locked to prevent movement of the chair.

2. With the patient sitting in a chair one (1) assistant in the front and the other assistant in the back, lean the patient forward.

NOTE: The front assistant will be supporting the weight of the patient.

3. Place the universal deluxe sling behind the patient (with "grab handle" on the outside) and bring the flaps out alongside the patient’s legs.

NOTE: The back of the universal deluxe sling should be parallel to the patient’s upper arms and be positioned between the top of the patient’s back and the top of the chair back.

4. With the back of the sling positioned properly, push the edges of the commode opening under the patient’s buttocks.

5. Lean the patient back into the chair with the assistant in the rear supporting his/her weight.

6. Lift the patient’s legs (one at a time) and reach under the patient’s leg and pull until the front of the sling is behind the patient’s knees (about three [3] inches) and the back of the sling remains in position.

NOTE: The straps may be crossed BETWEEN or UNDERNEATH the patient’s legs.

7. Attach the sling to the swivel bar. Refer to Attaching the Slings to the Patient Lift in LIFTING THE PATIENT Section of this manual.
FIGURE 1B - POSITIONING THE PATIENT IN THE MODEL NO. 9742 - UNIVERSAL DELUXE SLING
OPERATION

OPERATING THE PATIENT LIFT (FIGURE 1)

To Close/Open the Legs of the Base Assembly

The shifter handle is used to open or close the legs of the base for stability when lifting a patient.

**WARNING**

The operation of the patient lift is an easy and safe procedure. DO NOT attempt any transfer without approval of the patient’s physician, nurse or medical assistant. Thoroughly read the instructions in this Owner’s Manual, observe a trained team of experts performing the lifting procedures and then perform the entire lift procedure several times with proper supervision and a capable individual acting as a patient.

ONLY operate this lift with the legs in MAXIMUM OPEN POSITION and LOCKED in place. The base legs MUST be locked in the open position at all times for stability and patient safety when lifting and transferring a patient.

1. Stand at the rear of the patient lift and grasp the shifter handle with one (1) hand and place the opposite hand on the steering handle of the mast for balance.

**NOTE:** The shifter handle MUST lock into its mounting slot to lock the legs in the full open or closes position.

**WARNING**

If the shifter handle is NOT positioned completely into its mounting slot, DO NOT use the patient lift until shifter handle is properly seated and the legs of the patient lift LOCKED in place or injury and/or damage may occur.

**TO CLOSE.**

2. Push the shifter handle OUT and away from the patient lift and then to your LEFT until it LOCKS in the notch of the bracket.

**TO OPEN.**

3. Push the shifter handle OUT and away from the patient lift and then to your RIGHT until it LOCKS in the notch of the bracket.

There are two (2) controls on the pump assembly:

- a. The control valve
- b. The pump handle

RAISING THE LIFT (FIGURE 2). The control valve MUST be in the closed position (turn control valve clockwise until tight) to move the pump handle up and down and elevate the boom and the patient.
OPERATION (Cont.)

WARNING
Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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 THE LIFT
Press the UP (↑) button to raise the boom and the patient lift.

LOWERING THE LIFT
Press the DOWN (↓) button to lower the boom and the patient.

FIGURE 4 - RAISING/LOWERING THE ELECTRIC PATIENT LIFT

WITH PATIENT

FIGURE 3A - LOWERING THE MANUAL / HYDRAULIC PATIENT LIFT

FIGURE 3B - LOWERING THE MANUAL / HYDRAULIC PATIENT LIFT

FIGURE 2 - RAISING THE HYDRAULIC PATIENT LIFT

LOWERING THE LIFT (FIGURE 3). The control handle MUST be in the OPEN position (control valve turned counterclockwise) to lower the boom and the patient. The rate of descent can be controlled by varying the amount that the control valve is opened.

NOTE: A safety gate is part of the hydraulic system that maintains a SLOW maximum descent rate.

1. WITH the patient in a sling, turn the control valve 1/4-turn counterclockwise.
2. WITHOUT the patient in a sling, turn the control valve counterclockwise completely and pull DOWN on the boom.

NOTICE: Turn clockwise to close.
LIFTING THE PATIENT

ATTACHING THE SLINGS TO THE PATIENT LIFT (FIGURE 1)

NOTE: Refer to PATIENT LIFT SAFETY SUMMARY in the front of this manual before proceeding further and observe all WARNINGS indicated.

WARNING
Before lifting or transferring the patient, the base legs MUST be LOCKED in the OPEN position for optimum stability and safety.

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

1. With the legs of the base OPEN and LOCKED, use the steering handle to push the patient lift underneath the bed.

2. Lower the patient lift for easy attachment of the sling.

CAUTION
When connecting the sling to the patient lift, the shortest of the straps MUST be at the back of the patient for support. Using the long section will leave little or no support for the patient’s back. The loops of the sling are color coded and can be used to place the patient in various positions. The colors make it easy to connect both sides of the sling equally. Make sure that there is sufficient head support when lifting a patient.

3. Place the straps of the sling over the hooks of the swivel bar. Match the corresponding colors on each side of the sling for an even lift of the patient (FIGURE 1).

NOTE: Model No. 9746 - Hammock and Model No. 9747 - Hammock w/Commode have four (4) sling straps while Model No. 9742 - Universal Deluxe Sling has six (6) sling straps.

FIGURE 1 - ATTACHING THE SLINGS TO THE PATIENT LIFT

HAMMOCK SLING WITH OR WITHOUT COMMODE OPENING (FOUR [4] STRAPS ONLY)

UNIVERSAL DELUXE SLING W/OUT HEADREST WITH COMMODE OPENING (SIX [6] STRAPS)
LIFTING / MOVING THE PATIENT

NOTE: DO NOT engage the rear locking casters when patient is in the lift.

1. Pump the lift handle or press the UP (↑) button to raise the patient above the bed. The patient should be elevated high enough to clear the bed with their weight fully supported by the lift.

NOTE: On manual / hydraulic lift, the boom will stay in position until the control valve is opened. On the electric lift, the boom will stay in position until the DOWN (↓) button is pressed.

2. When the patient is lifted from the bed (with the patient’s head supported by the sling and/or an assistant), he/she will be raised to a sitting position (FIGURE 2).

WARNING
When elevated a few inches off the surface of the bed and before moving the patient, check again to make sure that the sling is properly connected to the hooks of the swivel bar. If any attachments are NOT properly in place, lower the patient back onto the bed and correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

3. When patient is clear of the bed surface, swing their feet off the bed (FIGURE 3).

4. Using the steering handles, move the lift away from the bed.
5. When moving the patient lift away from the bed, turn patient so that he/she faces assistant operating the patient lift (FIGURE 4).

6. Press the DOWN (▽) button (electric) or open control valve (manual / hydraulic) lowering patient so that his feet rest on the base of the lift, straddling the mast. Close control valve.

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

7. Pull the patient lift away from the bed and push from behind with both hands firmly on the push handle.

FIGURE 4 - MOVING THE PATIENT LIFT AWAY FROM THE BED
3. With the help of both assistants, guide the patient onto the commode chair.
4. Lower the patient onto the commode chair leaving the sling attached to the swivel bar hooks.
5. When complete, recheck for correct attachment and then raise the patient off of the commode chair.
6. When patient is clear of the commode surface (using the steering handles), move the lift away from the commode chair.
7. To return patient to bed, reverse procedures concerning lifting the patient, operation and sling attachment.
8. To return or place patient in a wheelchair, refer to TRANSFERRING TO A WHEELCHAIR.

**WARNING**
When elevated a few inches off the surface of the commode chair or standard commode and before moving the patient, check again to make sure that the sling is properly connected to the swivel bar hooks. If the sling attachments are NOT properly in place, lower the patient back onto the commode chair or standard commode to correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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.

**Transferring to a Commode Chair**
(FIGURE 1)

1. To lift the patient from the bed, follow the procedures concerning lifting the patient, operation and sling attachment.
2. The patient should be elevated high enough to clear the commode chair arms and their weight supported by the patient lift.

**FIGURE 1 - TRANSFERRING TO A COMMODE CHAIR**
TRANSFERRING PATIENT FOR USE OF THE BATHROOM FACILITIES

Transferring to a Standard Commode

NOTE: 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. Refer to TRANSFERRING TO A WHEELCHAIR in this manual. After this has been accomplished refer to the following:

1. To lift the patient from the bed, follow the procedures concerning lifting the patient, operation and sling attachment.
2. The patient should be elevated high enough to clear the standard commode and their weight supported by the patient lift.
3. With the help of both assistants, guide the patient onto the standard commode.
4. Lower the patient onto the standard commode leaving the sling attached to the swivel bar hooks.
5. When complete, recheck for correct attachment and then raise the patient off of the standard commode.
6. When patient is clear of the standard commode surface (using the steering handles), move the lift away from the standard commode.
7. To return or place patient in a wheelchair, refer to TRANSFERRING TO A WHEELCHAIR.
8. To return patient to bed, reverse procedures concerning lifting the patient, operation and sling attachment.

TRANSFERRING TO A BATHING UNIT

WARNING
When elevated a few inches off the surface of the bed and before moving the patient, check again to make sure that the sling is properly connected to the swivel bar hooks. If any attachments are NOT properly in place, lower the patient completely to correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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.

NOTE: There are many portable bathing apparatuses; this is an example of one. Refer to your particular portable bath instructions and use them in conjunction with this Owner’s Manual.

1. To remove the patient from the bed, observe procedures concerning sling attachment, operation and lifting the patient.
2. The patient should be elevated high enough to clear the bed and be able to slide the portable bath tub under the patient.
3. Lower the patient into the portable bath tub.
4. Detach the sling from the swivel bar hooks and attach the portable bath tub straps to the patient lift.
5. Using the lift, raise the sides of the portable bath tub.
7. Reverse procedures to return patient to bed.
TRANSFERRING TO A WHEELCHAIR

TRANSFERRING TO A WHEELCHAIR (FIGURE 1)

NOTE: To position an individual in a sling, follow the procedures concerning lifting the patient, operation and sling attachments.

NOTE: Invacare recommends that two (2) assistants be used when transferring a patient to a wheelchair.

WARNING

When elevated a few inches off a seating surface and before moving the patient, check again to make sure that the sling is properly connected. If any attachments are NOT properly in place, lower the patient completely to correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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. The legs of the lift (w/patient) are in the opened position.
2. The wheelchair is moved into position.

WARNING

Wheelchair wheel locks MUST be in a locked position before lowering the patient into the wheelchair for transport.

3. The rear wheel locks of the wheelchair are locked to prevent movement of the chair.
4. The patient is positioned over the seat with their back against the back of the chair.
5. Begin to lower the patient either by opening the control valve or by pressing the DOWN (\(\downarrow\)) button.

6. With one (1) assistant behind the chair and the other operating the patient lift, the assistant behind the chair will pull back on the “grab handle” 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.

7. The sling is left in place.
8. To return to the seating surface, reverse procedures concerning lifting the patient, operation and sling attachments.

WARNING

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 the bed or chair.

1. The legs of the lift (w/patient) are in the opened position.
2. The wheelchair is moved into position.

FIGURE 1 - TRANSFERRING TO A WHEELCHAIR
TRANSFERRING FROM A WHEELCHAIR TO A CAR

NOTE: Invacare recommends that two (2) assistants be used when transferring a patient from a wheelchair to a car.

WARNING
When elevated a few inches off the seating surface of the wheelchair and before moving the patient, check again to make sure that the sling is properly connected to swivel bar hooks. If any attachments are NOT properly in place, lower the patient completely to correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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.

Transfer to a car is easily accomplished with the use of Invacare’s patient lifts and slings. The transfer to a car should be made on a level driveway or surface.

NOTE: Before lifting the patient from the chair, make sure to shorten the distance between the patient and the boom. This will make the transfer into the seat of the car easier.

NOTE: Attendants should practice "Good Body Mechanics" when positioning patient onto any seating surface.

1. The rear wheel locks of the wheelchair are locked to prevent movement of the chair.
2. Attach the sling to the swivel bar hooks.
3. Lift the patient from the wheelchair.
TRANSFERRING FROM A WHEELCHAIR TO A CAR

4. The lift is moved, by the steering handles, to a position close to the doorway of the car.

5. Lower the boom of the lift until the hooks of the swivel bar are even with the roof of the car.

6. As one (1) assistant pushes the patient into the car by his knees until he/she is positioned over the seat of the car, the other assistant lowers the boom. As the boom is being lowered, the first assistant is not only pushing but turning the patient so he/she is positioned facing the front of the car.

7. The patient will come to rest on the seat of the car.

8. While one (1) assistant is holding the patient, the other assistant removes the straps from the swivel bar and slides the patient lift out of the way.

9. The sling may be left under the patient or removed.

10. The mast, boom and pump assembly may be removed from the base and transported in the car.

NOTE: If the patient lift and wheelchair are both packed in the trunk of the car, care should be taken not to damage the spokes of the wheelchair on the patient lift.

FIGURE 1B - TRANSFERRING FROM A WHEELCHAIR TO A CAR
TRANSFERRING FROM A CAR TO A WHEELCHAIR (FIGURE 1)

NOTE: Invacare recommends that two (2) assistants be used when transferring a patient from a wheelchair to a car.

WARNING
When elevated a few inches off the seat of the car and before moving the patient, check again to make sure that the sling is properly connected to the swivel bar hooks. If any attachments are NOT properly in place, lower the patient completely to correct this problem.

Adjustments for safety and comfort should be made before moving the patient. Patient’s arms should be inside of the straps.

Invacare slings are made specifically for use with Invacare Patient Lifts. For the safety of the patient, DO NOT intermix slings and patient lifts of different manufacturers. Warranty will be voided.

Invacare does NOT recommend locking of the rear casters of the patient lift when lifting an individual. Doing so could cause the lift to tip and endanger the patient and assistants. 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.

NOTE: One (1) assistant will support patient at all times.

1. With the first assistant supporting the patient, the second assistant then lowers the boom of the patient lift until the hooks of the swivel bar are even with the roof of the car.

2. Attach the sling to the swivel bar.

3. Lift patient up off of seat until straps are taut.

4. Turn patient with sling until legs are outside of car.

NOTE: Attendants should practice "Good Body Mechanics" when positioning patient onto any seating surface.

5. Lift up on legs with one (1) hand and tilt the patient’s back with the other hand.

6. The second assistant should pull the patient lift away from the car until the patient is completely clear of the door frame.

7. Release the patient back to his/her normal sitting position in the sling.

8. Position the wheelchair under the patient.

9. Engage the rear wheel locks of the wheelchair.

WARNING
Wheelchair wheel locks MUST be in a locked position before lowering the patient into the wheelchair for transport.

10. One (1) assistant will slowly lower the patient into the wheelchair while the other assistant guides him/her into the chair.
## TROUBLESHOOTING

<table>
<thead>
<tr>
<th>SYMPTOMS</th>
<th>FAULTS</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Lift feels loose.</td>
<td>Foot pedal pressure loose.</td>
<td>Refer to Foot Pedal Adjustment in the CARE AND MAINTENANCE section in this manual.</td>
</tr>
<tr>
<td>Casters/Brakes noisy or stiff.</td>
<td>Fluff or debris in bearings.</td>
<td>Refer to Casters in the CARE AND MAINTENANCE section in this manual.</td>
</tr>
<tr>
<td>Noisy or dry sound from pivots.</td>
<td>Needs lubrication.</td>
<td>Refer to Lubrication in the CARE AND MAINTENANCE section in this manual.</td>
</tr>
<tr>
<td>Oil leaking from hydraulics.</td>
<td>Hydraulic pump in need of service.</td>
<td>Refer to Manual / Hydraulic or Electric Actuator Replacement in the CARE AND MAINTENANCE section of this manual. Contact your Dealer.</td>
</tr>
</tbody>
</table>

NOTE: If problems are not remedied by the suggested means, please contact your Dealer or Invacare.
# MAINTENANCE SAFETY INSPECTION CHECKLIST

<table>
<thead>
<tr>
<th>ITEM</th>
<th>INITIALLY</th>
<th>INSPECT/ADJUST MONTHLY</th>
<th>INSPECT/ADJUST PERIODICALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE CASTER BASE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Inspect for missing hardware.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Base opens/closes with ease.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect casters and axle bolts for tightness.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect casters for smooth swivel and roll.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apply a light grease to caster ball bearings.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHIFTER HANDLE</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Operates smoothly.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locks adjustable base whenever engaged.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE MAST</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Mast should lock securely when assembled.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect for bends or deflections.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE BOOM</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Check all hardware and swivel bar supports.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect for bends or deflections.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect bolted joints of boom for wear.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect to ensure that the boom is centered between the base legs.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE SWIVEL BAR</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Check the hooks for wear or damage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check sling hooks for wear or deflection.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE PUMP ASSEMBLY</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Check for leakage.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect hardware on mast and boom.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check for wear or deflection of rod.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(IF DAMAGED, RETURN TO FACTORY).</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE PUMP HANDLE</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Check for smooth operation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>THE CONTROL VALVE</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Opens and closes easily.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLEANING</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whenever necessary.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLINGS AND HARDWARE</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>CHECK ALL SLING ATTACHMENTS each time it is used to ensure proper connection and patient safety.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect sling material for wear.</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect straps for wear.</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
CARE AND MAINTENANCE OF YOUR PATIENT LIFT

NOTE: 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.

All parts of the Invacare Lift are made of the best grades of steel, but metal to metal contact will wear after considerable use.

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 immediately and advise him/her of your problem.

Lubrication (FIGURE 1)
The Invacare lift is designed for minimum maintenance; however, a six (6) 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 as soon as possible.

The casters MUST swivel and roll smoothly. A light grease (waterproof auto lubricant) may be applied to the ball bearing swivel of the casters once a year. Apply more frequently if the casters are exposed to extreme moist conditions.

The connection between the mast and the base should be cleaned and coated with petroleum jelly prior to assembly.

Refer to lubrication diagram for lubrication points. Lubricate all pivot points. Wipe all excess lubricant from lift surface.

1. Swivel Bar
2. Boom Mounting Bracket
3. Boom / Mast Mount
4. Mast Mounting Bracket
5. Base / Mast Mount
6. Rear Casters
7. Front Caster
8. Front Caster

FIGURE 1 - LUBRICATION

Wear and Damage
It is important to inspect all stressed parts, such as slings, spreader bar and any pivot for slings for signs of cracking, fraying, deformation or deterioration. Replace any defective parts immediately and ensure that the lift is not used until repairs are made.

Cleaning
The sling should be washed regularly in water temperature of 140°F (60°C) and a biological solution. 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. Auto wax or furniture polish will help maintain the sparkling finish over a long period of time.
Manual / Hydraulic Pump

All parts of the Manual / Hydraulic Pump are precision machined, then carefully assembled and tested to ensure reliable service. The pump assembly is completely enclosed and sealed with Neoprene rings to prevent leakage of hydraulic oil. A small amount of oil (about a drop) will accumulate around the piston from time to time and should be removed with a facial tissue.

WARNING

The pump is sealed at the factory and if service is required, the pump unit MUST be returned to the factory for repair. DO NOT attempt to OPEN the pump or obtain local service as this will void the warranty and might result in damage and costly repair. Consult your dealer or write Invacare for information.

MANUAL / HYDRAULIC PUMP OR ELECTRIC ACTUATOR REPLACEMENT (FIGURE 2).

1. Remove the covers, nut, bolt and plastic bushing from the boom mounting bracket.
2. Remove the covers, nut, bolt, washers and spacer from the mast mounting bracket.
3. Reverse steps for installation.

CAUTION

DO NOT overtighten mounting hardware. This will damage mounting brackets.

FIGURE 2 - MANUAL / HYDRAULIC PUMP OR ELECTRIC ACTUATOR REPLACEMENT
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**Swivel Bar Replacement (FIGURE 3)**

**WARNING**
After the first year of use, the hooks of the swivel bar and the mounting brackets of the boom should be inspected every three (3) months to determine the extent of wear. If these parts become worn, replacement must be made.

1. The swivel bar comes attached to the boom with covers, bolt, nut, washers, plastic bushing and spacer.

**NOTE:** Washers should be placed against both sides of the boom mounting bracket to eliminate damage.

2. Plastic covers are placed over the bolt and nut.

**NOTE:** The swivel bar has three (3) hooks on both ends to attach the sling that supports the patient during lift.

3. Remove existing hardware and replace swivel bar.

**CAUTION**
DO NOT overtighten mounting hardware. This will damage mounting brackets.

**Base Adjustment (FIGURE 4)**

The base adjustment should not require any attention other than:

1. Check the squareness of the legs when in the CLOSED position.
2. Position the stops so that linkage rods can be adjusted to obtain 90° alignment.
3. Adjust the linkage rods until 90° alignment is achieved.
4. Reposition the stops after base legs are adjusted to maintain 90° alignment.

**FIGURE 3 - SWIVEL BAR REPLACEMENT**

**FIGURE 4 - BASE ADJUSTMENT**
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Shifter Handle Adjustment (FIGURE 5)
1. Check the free movement of the linkage rods and tighten or lubricate if necessary.
2. Check the shifter handle operation. The locknut should be tighten completely to prevent the legs from opening accidentally.

NOTE: When removing the casters from its mounting bracket, the caster will come apart as shown in FIGURE 6. Reassemble as shown.

1. To remove the casters ONLY, remove the nut and bolt that secure the casters to the base mounting bracket (FIGURE 7).
2. If cleaning the casters, remove caps, spacers and bearings. Reassemble as shown in FIGURE 7.

Casters

WARNING
Casters and axle bolts require inspection every six (6) months to check for tightness and wear.

REAR CASTER REPLACEMENT (FIGURE 6).
1. Remove the cover, nut, washers and spacer that secure the rear caster to the base. Replace with new caster and reinstall.

FRONT CASTER REPLACEMENT.

FRONT CASTER HOUSING REMOVAL (FIGURE 8).

NOTE: It may be necessary to remove the caster before removing the caster housing. To perform this procedure without removing the caster, a cut-down Allen wrench will have to be used.

1. Using a cut-down Allen wrench, remove the button head screw and nut that secures the caster housing to the base.
2. Replace with new housing and secure.
ACCESSORIES

INVACARE 9833A WEIGHT MODULE (DIGITAL SCALE)

The Invacare 9833A Weight Module is a compact precision scale system designed specifically for the Invacare Patient Lift System. Completely self-contained, it interfaces the latest precision strain gauge transducer technology with signal conditioning electronics to provide stable, accurate and repeatable weight data.

Specifications

Weight Range: 375 lbs./170.5 kg
Resolution: 0.1 lbs./0.1 kg
Accuracy: 0.1% ± 1 digit of reading
Display: Liquid Crystal Digital
* Hold: After one (1) minute. Automatic Power Down - two (2) minutes.
Size: 3-inches x 3-inches x 4-inches
Weight: One (1) pound
Power: Nine (9) volt alkaline battery
Battery Life: Approximately 3000 readings

Installation

1. Remove the covers, bolt, nut washers, plastic bushing and spacer that secure the swivel bar to the boom (FIGURE 1).

   Remove existing hardware

   FIGURE 1 - SWIVEL BAR REMOVAL

   NOTE: When reassembling the swivel bar hardware, slide the bolt through the hook of the weight module.

2. Use the existing swivel bar hardware (except spacer) and reassemble the weight module to the boom mounting bracket (FIGURE 2).

   NOTE: Washers should be placed against both sides of the boom mounting bracket to eliminate damage.

CAUTION

DO NOT overtighten mounting hardware. This will damage mounting brackets. Brackets MUST pivot. The bolt threads MUST protrude past the nut to ensure that locking feature functions.

3. Secure the top of the weight module mounting bracket to the bottom of the weight module with the nut, thin washers, spacer and bolt provided (FIGURE 2).

4. Reattach the swivel bar to the bottom of the weight module with the bolt and nut provided (FIGURE 2).

   Reassemble Existing Hardware
   Bottom of Weight Module
   Thick Washers
   Thin Washers
   Top of Weight Module Mounting Bracket

   FIGURE 2 - WEIGHT MODULE INSTALLATION
Operating Instructions

1. Set the lbs./kg switch to the desired mode.

2. With the swivel bar and sling attached to the weight module, press the OPERATE button on the front panel and adjust to ZERO by rotating the adjustment knob until you obtain a displayed reading of 00.0.

NOTE: The swivel bar and sling can also be weighed separately, then subtracted from the total weight which includes the patient and attaching hardware.

3. Place the patient in the sling.

4. Lift the patient to a height sufficient enough to ensure that the patient is not in contact with the bed, chair, etc.

5. When the patient's motion has stabilized, press the OPERATE button and the patient's weight will be displayed.

NOTE: The weight module will automatically turn OFF after approximately two (2) minutes to conserve power. If the display turns OFF before you are able to record the patient's weight, simply press the OPERATE button once again.

6. Carefully lower the patient after reading.

HOLD FUNCTION. With the HOLD switch in the HOLD ON position, the display reading will FREEZE after approximately one (1) minute (lbs./kg will flash) then automatically turn off at the end of the two (2) minute timing cycle.

Battery Replacement

The weight module is powered by a nine (9) volt battery. This should provide approximately 3000 readings before needing replacement.

When battery replacement is needed, a B will appear on the display.

Simply remove the two (2) screws on the sides of the module and slide the housing upward to access the battery.

CAUTION
Calibration and maintenance should be performed by trained factory personnel ONLY. The load cell transducer contains no user serviceable components. In the event of unauthorized tampering, warranties shall become null and void.
PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Invacare warrants the products manufactured to be free from defects in materials and workmanship for a period of three (3) years on the lift and one (1) year on the slings, hydraulic pump/electric actuator from the date of purchase. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Invacare’s option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Invacare’s sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your Invacare product. In the event you do not receive satisfactory warranty service, please write directly to Invacare at the address on the back cover, provide dealer’s name, address, and the date of purchase, indicate nature of the defect.

Invacare Corporation will issue a serialized return authorization. The defective unit or parts MUST be returned for warranty inspection using the serial number, when applicable as identification within 30 days of return authorization date. Do not return products to our factory without our prior consent. C.O.D. shipments will be refused; please prepay shipping charges.

Limitations and Exclusions: The foregoing warranty shall not apply to serial numbered products if the serial number has been removed or defaced, products subjected to negligence, accident, improper operation, maintenance or storage, products modified without Invacare’s express written consent (including, but not limited to, modification through the use of unauthorized parts or attachments; products damaged by reason of repairs made to any component without the specific consent of Invacare, or to a product damaged by circumstances beyond Invacare’s control, and such evaluation will be solely determined by Invacare. The warranty shall not apply to problems arising from normal wear or failure to adhere to the instructions in this manual.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS WARRANTIES, IMPLIED WARRANTIES, IF ANY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESSED WARRANTY PROVIDED HEREIN AND THE REMEDY FOR VIOLATIONS OF ANY IMPLIED WARRANTY SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. INVACARE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

Some states DO NOT allow exclusion or limitation of incidental or consequential damage, or limitation on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

This warranty shall be extended to comply with state or provincial laws and requirements.