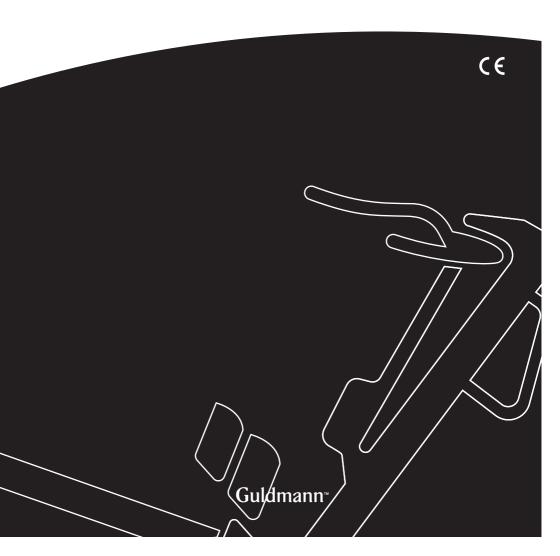


GB/USGLS5 Active lifter

User manual - vers. 2.00



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GLS5 Active lifter

Item nos:

556-xxx

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1.00 Manufacturer

V. Guldmann A/S.

Graham Bells Vei 21-23A

DK - 8200 Aarhus N

Tlf. +45 8741 3100 Fax. +45 8741 3131

2.00 Intended use

GLS5 is a mobile active lifter which is designed to assist the user from a sitting to a standing position. It can also be used to assist the user in the toileting procedure or the beginning of the rehabilitation process. The lifter is suitable for lifting or moving a person who is capable of actively participating in the process, the user must also have good communication skills.

When the active lifter is used the assumption is that:

- The user can balance in a sitting position, has strength in the lower and upper body and can communicate.
- The lifter will be operated by a qualified person.
- The active lifter is moved at a maximum speed corresponding to normal walking speed.
- · The Guldmann active lifter is used with Guldmann lifting slings.

Guldmann cannot be held responsible for any faults or accidents that may occur due to incorrect positioning of the lifting sling, nor for inadequate attention paid by the helper. We strongly recommend assessment of the user before every lift.

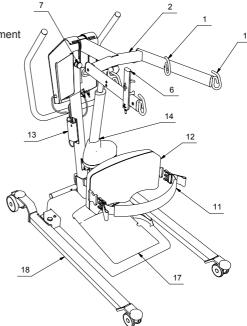
2.01 Where to use GLS5

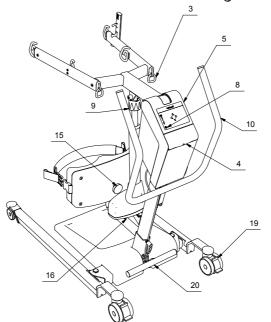
GLS5 is designed to be used in hospitals, nursing homes, institutions and private homes. It can be used indoors whenever the user needs to be lifted or moved on a level surface.

- The lifter is designed so its legs can fit under beds, around chairs / wheelchairs.
- The lifter can be used in wet areas however, it must not be exposed to splash water
- The lifter is designed to be used with multiple users. When moving the lifter to another user / ward / room, perform normal hygienic disinfection.

3.00 Definitions

- 1. Sling attachment hooks
- 2. Lifting boom
- 3. Hip support sling attachment
- 4. Battery
- 5. Electronic control box
- 6. Hand control
- 7. Emergency stop
- 8. Emergency lowering electrical
- Emergency lowering manual
- 10. Push handle
- 11. Calf strap
- 12. Knee pad
- 13. Power supply
- 14. Lifting actuator
- Knee pad height adjustment knob
- 16. Knee pad length adjustment knob
- 17. Foot plate
- 18. Chassis leg
- 19. Brake/release
- 20. Foot bar





4.00 Use of Active lifter

The lifter is designed to lift from a sitting position only. It is NOT designed to lift from lying position.

Before using the lifter we strongly recommend that a full risk assessment is carried out by a qualified person to ensure the user capability, the correct slings are used and the environment is suitable. Anyone using the lifter should be fully trained on its use.

Before every transfer with the active lifter, we strongly recommend you carry out a quick assessment to assess the user's capability.

Quick Assessment

With the user in a seated position in chair / wheelchair / edge of bed - ask the user to push down through his/her knees (feet must be placed flat on the floor) - upon inspection the helper should see the user's quads tighten. This indicates strength to assist with the standing procedure, it also confirms communication skills

4.01 Warning

Read the user manual fully before using the lifter.

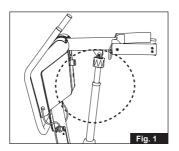
- · Do not exceed the max. load.
- Use the lifter to lift a person only.
- · Use the lifter on an even and level surface only.
- When adjusting the legs of the lifter make sure that no persons stand close to the legs due to the risk of being jammed.
- · Do not run the lifter into persons or objects.
- Exchange of lifting motor/actuator according to the manufacturer's instructions. See service chapter
- In case of damage, do not use the lifter until authorized by qualified service staff or the Guldmann service team
- · Do not use the lifter in areas where it can be splashed with water.

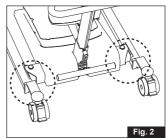
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4.02 Safety precautions



- Risk of entrapment between the top of the lifting actuator and lifting arm.
- Risk of entrapment between the legs and the chassis when adjusting the legs.





4.03 Checklist before use

- The lifter must be off charge.
- Check the lifter is lifting and lowering and the legs are opening and closing, if you hear the audio warning (a beeping sound) DO NOT USE THE LIFTER – it needs to be charged.
- Check that the green light located on the control box is illuminated when the lifter is activated.
- Check that the emergency stop and lowering is working.
- · Make sure the lifter is running freely.
- · Check the slings for damage or fraying.

Once you have fitted the sling (see section 6.00 - How to use the sling) you are ready to lift.

With the user in a seated position

- If the user is in a wheelchair or commode chair the brakes must be applied.
- Position the lifting boom at lowest position and introduce the lifter square onto the user. The helper should be positioned at the side of the lifter (to ensure the lifter does not run over the user's feet).
- Open the lifter's chassis leg width adjustment to allow access around the chair
- Position the user's feet flat onto the foot plate and adjust the knee pad the top of the knee pad should be level with the top of the shin, two fingers below the knee joint.
- OPTIONAL if the user has a tendency to have involuntary movements you
 can use the calf strap to ensure the users' feet do not come off the foot plate.
 If the calf strap is not in use, fasten the strap to the back of the knee pad
 (avoiding loose straps).

- Raise the lifting boom to gain tension on the sling ENSURE THE SLING IS STILL SECURE AND ATTACHED BEFORE CONTINUING WITH THE LIFT. Communication should be maintained throughout the lifting procedure. Alternatively you have the option to attach the sling onto the lower hooks; this will facilitate an alternative lifting position and is more suitable for the shorter user. To lower the user back into a seated position push the lifter up to the chair / commode chair / toilet and position the user so the calf is parallel to the chair / commode chair / toilet. Begin to lower and ask the user to push his/her pelvis / hip backwards to ensure the correct seated position.
- Release the sling straps and move the lifter away from the user.
- The sling is ready for removal see sling user guide.

Working with the Active lifter

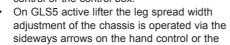
Always maintain a good working posture when applying the sling or working
with the lifter. When moving a person use the push handle and walk with the
lifter keeping the load as close as possible to your body. NEVER pull or twist
at arm's length, this can cause injury to the helper.

5.00 Operation

To lift/lower and adjustment of chassis leg in/out

 To lift the patient press UP arrow and to lower the patient press DOWN arrow on the hand control or the control box.



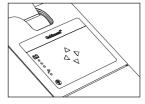


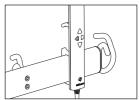


 Use max. width setting when lifting to/from wide chairs, or as necessary when lifting to/ from bed. toilet and chair.

control panel on the control box.

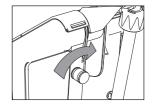
- The hand control is designed to be parked at the lifting boom.
- When maneuvering the lifter the chassis legs must be in the closed narrow position.





Safety functions

Only use the emergency stop button and emergency lowering functions in emergencies. If it has been necessary to apply the emergency/safety functions due to an error on the lifter, the supplier must be contacted prior to using the lifter again.





Activating the emergency stop function

Should the lifter not respond to the functions selected on the hand control when it is in motion, press emergency stop. When the emergency stop function is applied, the lifter ceases to function. Switch the lifter on again by turning the emergency stop button in the direction of the arrow until it jumps out.



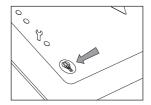
Activating the emergency lowering function

If the lifter fails to lower, activate the following:

Press the emergency lowering button on the control box display

If the lifting boom does not lower

2. Turn the red knob in the direction of the arrow



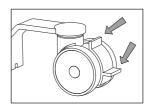


Use of brakes

The rear castors are fitted with brakes. Apply the brake by stepping on the lower kick pedel.

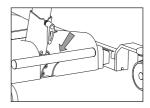
To release the brake, kick the top part of the kick pedal.

Only apply the brakes if the user is pushing the lifter away with his/her feet on the foot plate while the user is seated in the chair, wheelchair, toilet or commode.



Use of foot bar

The foot bar is there to assist the helper to initiate movement, and to facilitate the clearing of door thresholds or to assist loading into vehicles. This is achieved by placing one foot onto the foot bar and gently pulling back on the push handle.

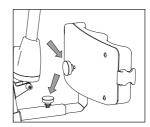


Adjustment of knee pad

The knee pad can be adjusted in vertical and horizontal direction to fit the different users.

Vertical: Adjust by unscrew the yellow knob, lift or lower the knee pad in right position and then tighten the knob.

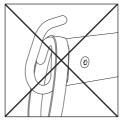
Horizontal: Loosen the yellow knob, then slide the knee pad in or out until it fits the user. Then tighten the knob clockwise to lock the knee pad safely.

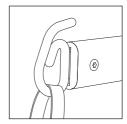


5.02 Important

- Read the user manual and familiarize yourself with the controls and safety features on the lifter.
- · Always plan your lift before commencing.
- · Only use slings that are designed to be used with the active lifter.
- · Never use slings that are damaged, frayed or have unreadable labels.
- Check to make sure the user does not exceed the safe working load of the lifter.
- For safety reasons we DO NOT recommend transporting users through standard door frames
- Caution must be exercised when mounting the sling lifting straps onto the lifting hooks of the boom.





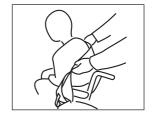


6.00 How to use the sling

Standing Sling

NOTE: Label must be facing away from the user and must not be turned upside down.

 Place the sling on the user's shoulders and / or the chair's backrest. Ask the user to lean forward and let the sling go behind the user's back positioning the sling two fingers beneath the shoulder blade and above the belt line.



Position the upper edge of the sling under the armpits and stand in front of the user. Ensure that a minimum distance of two fingers is between the sling and the armpits.

Ensure the belt is securely tightened and the Velcro is functional.



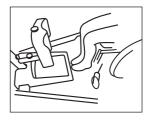
 Wrap and attach the support belt firmly around the upper body to prevent the sling from sliding. The sling is now ready for attachment to the lifter.

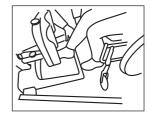


Introduce the lifter. CAUTION must be exercised to the foot plate when near user's feet.

Place the user's feet onto the foot plate and adjust the knee pad - the top of the knee pad should be level with the top of the shin on a distance of two fingers below the knee joint.

OPTIONAL – if the user has a tendency to have involuntary movements you can use the calf strap to ensure the user's feet do not come off the foot plate. If the calf strap is not in use fasten the strap to the back of the knee pad (avoiding loose straps).





 Raise the lifting boom to gain tension on the sling - ENSURE THAT THE SLING IS STILL SECURE AND ATTACHED BEFORE CONTI-NUING WITH THE LIFT.

Communication with the user should be maintained throughout the lifting procedure.

Alternatively you have the option to attach the sling onto the lower hooks; this will facilitate an alternative lifting position and is more suitable for the shorter user.

When placing the user back into a seated position push the lifter up to the chair / commode chair / toilet and position the user so the user's calf is parallel to the chair / commode chair / toilet. Begin to lower and ask the user to push his/her pelvis backwards to ensure the correct seated position.

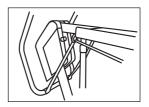
To remove the sling carry out the fitting instructions in reverse order, taking care to remove the sling from the user avoiding skin friction and movement.



Hip Support Sling

Attachment of the hip support straps

The support straps are looped at one end and have a buckle at the other. Thread the looped end through the gate on the boom and attach over the push handle bar as seen in the figure below. The strap is ready for use.



Hip Support Sling with the Standing Sling

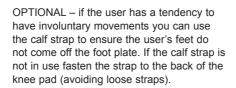
NOTE: Label must be facing away from the user

 Before fitting the standing sling ask the user to lean forward and introduce the hip support sling. This should be positioned at the base of the spine either side of the hips. Fit the standing sling as previously described.



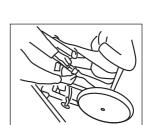
Introduce the lifter. CAUTION must be exercised to the foot plate when near user's feet.

Place the user's feet onto the foot plate and adjust the knee pad - the top of the knee pad should be level with the top of the shin two fingers below the knee joint.



 Attach the hip support sling to the straps snapping the buckle together. Raise the lifting boom to gain tension on both slings

 ENSURE THAT THE SLING IS SECURE AND ATTACHED BEFORE CONTINUING WITH THE LIFT. Adjust the hip support straps through the buckle and continue. The hip support sling should tension before the standing sling, - if it does not, then lower the user and readjust one or both slings.





4. As the lift progresses at approximately 60% into the standing procedure the hip support sling will loosen and once in standing the sling will be redundant allowing access to lower garments. Communication should be maintained throughout the lifting procedure.

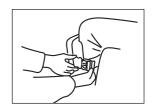
Alternatively you have the option to attach the standing sling onto the lower hooks, this will facilitate an alternative lifting position and is more suitable for the shorter user.

When placing the user back into a seated position push the lifter up to the chair /commode chair/toilet and position the user so his/her calf is parallel to the chair /commode chair/toilet.

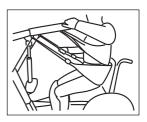
 Begin to lower and at approximately 40% into the lowering procedure re-apply the hip support sling and continue to lower. The sling will ensure correct seated position.

To remove the sling carry out the fitting instructions in reverse order, taking care to peel the sling away from the user avoiding skin friction and movement

Alternatively: The Active Micro Plus sling can be used with the active lifter – for instructions see separate user guide for Active Micro Plus Sling.



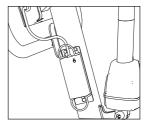




7.00 Charging procedure

Recharge lifter every night or when it is not in use. This maintains the batteries and ensures a long life span.

Only use power supply provided by Guldmann.

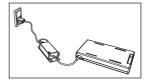


Recharging

- Recharge by plugging the power supply lead into the wall socket
- Recharging must be carried out when the yellow, or red LED is illuminated
- · When the yellow LED illuminates there are approx. 10 lifts remaining
- When the red LED illuminates and the audio warning sounds, it is only possible to lower the patient
- · The power supply will turn off automatically when lifter is fully recharged
- Recharging must not take place in wet rooms/bathrooms
- · Max. recharging time is approx. 5 hours.

Alternative charging procedure

Remove the battery and place it on a dry surface. Connect power supply plug to mains. Now insert the male connector into battery.



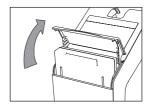
8.00 Unpacking and preparation of the lifter

Visual check of lifter

If the packaging is damaged on receipt, each part of the lifter must be carefully examined for visible defects or deficiencies. In case of suspected damage, do not use the lifter until authorized by qualified service staff or the Guldmann Service Team

8.01 Charging and installing battery

Before use, the battery needs to be fully charged. See charging procedure. Unpack the battery from its packaging and locate into battery compartment by opening the lid and sliding it into position.



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9.00 Troubleshooting

Error:

Lifter does not react to input from the buttons on the hand control.

Does the green or yellow LED illuminate on the lifter when the control buttons on the hand control are activated?

Yes see point 6.

No no light visible - see point 2.

No only red light visible - see point 3.

No yellow service light visible or audible "Beep"— see "indicator and audio signals matrix" point 13.01.

2. Is the battery installed in the lifter?

Yes see point 4.

No install a fully charged battery.

3. Is a battery with sufficient charge installed in the lifter?

No install a fully charged battery.

4. Is the emergency stop activated?

Yes turn emergency stop in the direction of the arrow to allow it to release and press any button on the hand control.

No see point 5

5. Is the connector for the hand control fitted in the lifter, and is the lifter reacting to the buttons located on the control box?

Yes replace hand control

No fit connector

6. Are the connectors for the lifting motor and/or leg adjustment motor fitted?

Yes see point 5

No fit connector

Contact the Guldmann Service Team if the fault cannot be found and corrected.

Cleaning

We recommend that any parts of the active lifter that users/helper may come in contact with are cleaned with Novadan Des Wipes, Novadan Desinfect O or similar disinfection product.

Desinfect O:

A broad-spectrum disinfectant system as tablets. Suitable for disinfection of equipment, tools and surfaces in the healthcare sector.

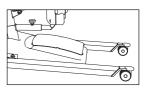
Novadan Des Wipes:

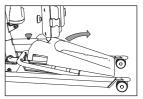
Use a disposable wipe for cleaning and disinfection of all types of surfaces, machines and instruments in the healthcare sector.

NB: Do never clean the lifter with strong acid, base or alcohol. Never clean the lifter in an autoclave machine

For easier cleaning of the foot plate it can be lifted off.

The grey inserted plate can be removed separately for cleaning. Footplate and grey insert plate can be cleaned using hot water and disinfecting soap.

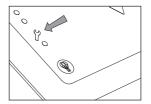




11.00 Service and lifespan

According to the international standard EN/ISO 10535 "Lifter for the transfer of disabled persons - Requirements and test methods" a safety inspection of the lifter must be performed at least once a year.

The lifter has an expected lifespan of 15 years. The lifespan is estimated on the basis of correct use, cleaning and maintenance, plus annual service and maintenance carried out by qualified service engineers of the Guldmann Service Team. At the end of the expected lifespan, the lifter must then be assessed by qualified service staff as to the lifters future use. The lifespan of the lifting actuator is determined by how regular the lifter is used.



Guldmann active lifter has intelligent monitoring of the usage pattern. The control box monitors the numbers of lifts and duration of the lifts. The service light on the control panel will then indicate when the lifting actuator needs replacing. This means that the lifespan of the actuator is dependent on the usage pattern of the lifter.

The lifespan of the lifting actuator - examples

Lifts/day	User weight – 85 kg/187 lbs.	User weight - 120 kg/243 lbs.			
	Lifespan lifting actuator	Lifespan lifting actuator			
5	17 years	15 years			
20	4.5 years	4 years			

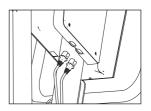
The lifter is controlled by a microprocessor PC board which can be damaged if it is being touched without the necessary precautions. Therefore the electronics must only be serviced by qualified Guldmann Team.

Spare parts lists and drawings are available from manufacturer or supplier.

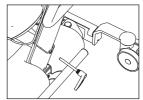
12.00 Transportation and storage

The lifter can be dismantled for transport and storage.

 Remove the electrical cable to the base from the control box.



Loosen the knob and lift the mast from the base



How to pack the lifter for transport

Guldmann recommends that the dismantled lifter is always transported in its original packaging.

Storage of active lifter

The active lifter should be stored in a dry room, where the humidity does not exceed 70%. The active lifter must never be stored in bathrooms and similar areas

Always activate emergency stop when the active lifter is put on storage.

How to prevent/avoid corrosion

The active lifter should not be stored/remain in damp surroundings for long periods of time. Water vapor might liquefy into water on the active lifter, thus causing corrosion/rust in bearings as well as in the tubular steel frame. The active lifter should not be exposed to sudden cold or warmth. This means that one should not take a cold active lifter into a hot bathroom. In swimming baths and bathrooms where strong gases may be present, the active lifter is particularly exposed to corrosion and should always be removed from such places after use.

13.00 Technical specifications

Functions

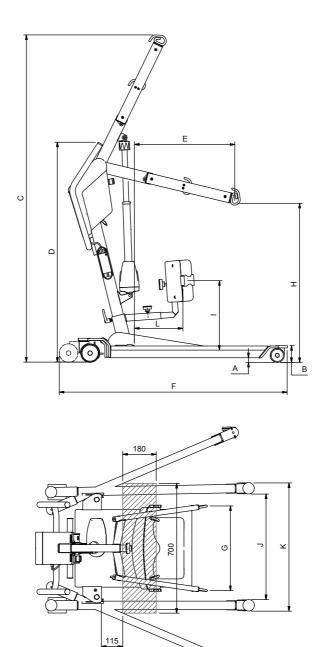
Operation

Lift:	Electric
Width adjustment:	Electric
Pushbuttons - max.:	
Knee pad:	
Lifting boom:	Manual

Weight

Totally:	kg
Chassis without foot plate & knee pad:	kg
Mast and lifting boom incl. control box & battery:	kg

Measurements
A:
B:
C:
D:
E:
F:
G:
H min/max:
I min/max:
J min/max:
K min/max:
L min/max:
Turning radius Turning radius:
Safety Features
Battery protection for insufficient voltage: Yes, disconnects
Electrical parts
On/off: Automatically
Power supply for charging
Input:
Output:
Battery, replaceable NiMH:
Charging time: Max. 5 hours
Consumption/power of actuator:
Duty Cycle: Max 10%, max. 2 min on, 18 min off.
Olace of Colores
Class of tightness Active lifter: IP 32
Hand control: IP 44
Power supply: IP 20
rowei suppiy
Labelling
The product is manufactured in compliance with the Council Directive
93/42/EEC of June 14th 1993, including amendments, as medical device
class 1.
Classified



13.01 Indicator lamps and audio signals

Status	Indicator lamps	Audio signals	Possible GLS signals			
			Up	Down	Leg spread	Emergency down
Off-stand by	Off					
All OK	Green		х	х	х	х
Low battery	Yellow		х	х	х	х
Critically low Battery	Red	Beeps at button activation		х		
Fault on lifter	Yellow		х	х	х	х
Over load		Beeps at button activation		х		х
Lifetime actuator will exceed in 1.000 lifts	Yellow		х	х	х	х
Lifetime actuator exceeded	Yellow flashes	Beeps at button activation	х	х	х	х

GLS5 active lifter, configurations									
Guldmann lifter type	Product line	Load in kg	Castors type	Actuator type	Additional functions	Scale module	CLM module	Service module	User interface
GLS5	(x)	xxx	х	х	х	х	х	х	х
GLS5		155	5	6					
		205	5	6					
GLS5		155	5	6					1
		205	5	6					1

Example: GLS5 205 560 000

GLS5	205	5	6	0	0	0	0	0
GLS5	 205 5			0 0	0 0	Hand cor N/A N/A N/A N/A Manual e turned 90 Castor si:	ntrol	own, motor
						N/A		
	 					Lifter, typ	e GLS5	

14.00 Labelling

Pictograms/labels used on product and user manual



Read instructions before use



CE-marking



Type B in accordance with EN 60601-1



Activating the emergency lowering function



Activating the emergency stop function



Battery condition and charging



Must not be disposed of as standard household waste, but must be recycled.



Lifting boom vertical up and down movement



Leg spread movement



Emergency stop button



Emergency lowering manually

User guide on control box



Examples of labels

Serial number labels



GLS5 (xxxx) xxx xxx xxxx

max 205 kg/450 lbs

Guldmann*

www.guldmann.com

Power supply



Hand control

Part no. xxxxxxx Edition xxx Date xxxx-xx-xx IP44

15.00 EC-Declaration of conformity

The product is manufactured in compliance with the Council Directive 93/42/EEC of June 14th 1993, including amendments, as medical device class 1.

16.00 Environmental policy statement - V. Guldmann A/S

Guldmann is continuously working towards ensuring that the company's impact on the environment, locally and globally, is reduced to a minimum.

It is Guldmann's goal to:

- Comply with the current environmental legislation (e.g. WEEE and REACH directives)
- Ensure that we, at the widest possible range, use RoHS compliant materials and components
- Ensure that our products do not have an unnecessary negative impact on the environment regarding use, recirculation or disposal
- Ensure that our products contribute to a positive working environment in the places they are utilised

Inspections are made annually by the Department for Nature and Environment from the Municipality of Aarhus using the Danish Environmental Protection Act, section 42 as a reference.

USA and countries outside the EU

A. Users guide

Before using the product, read the entire operation manual including warranty.

B. WARRANTY

Guldmann warrants its equipment is free from material defects under normal use, and will perform substantially in accordance with the specifications set forth in documentation provided with the equipment.

This express warranty shall be in effect for one year from the date of original purchase and installation (the "Warranty Period"). If a valid claim is made during the Warranty Period for malfunction or equipment defect, Guldmann will repair or replace the equipment at no additional cost to you. Guldmann retains sole discretion as to whether the equipment will be repaired or replaced.

This warranty shall be null and void if the equipment is operated and maintained in any manner inconsistent with its intended use or the instructions provided with the product. Further, in order for the warranty to remain in effect for the full Warranty Period, all service to the equipment must be provided by a Guldmann designated technician. Any parts or components repaired or replaced by a Guldmann designated technician will be guaranteed for the remainder of the Warranty Period.

The warranty does not cover any part of the equipment which has been subject to damage or abuse by the user or others. The warranty does not cover any part of the equipment which has been altered or changed in any way by the user or others. Guldmann does not warrant that the lifting device functions will meet your requirements, be uninterrupted or error free.

The warranty set forth is in lieu of all other express and implied warranties, whether oral, written or implied, and the remedies set forth above are your sole and exclusive remedies. Only an authorized officer of Guldmann may make modifications to this warranty, or additional warranties binding on Guldmann. Accordingly, additional statements such as advertising or presentations, whether oral or written, do not constitute warranties by Guldmann.

Service or Repair

Contact Guldmann Repair for an authorization to return any defective item during the Warranty Period. You will be provided with a return authorization number and address for returning the item for warranty service or replacement. Do not return items to Guldmann under warranty without receiving a Return Authorization Number.

If mailing the item, pack it carefully in a sturdy carton to prevent damage. Include your Return Authorization Number, a brief description of the problem and your return address and phone number. Guldmann does not assume the risk of loss or damage while in transit, so it is recommended you insure the package.

Time to care

V. Guldmann A/S Corporate Office: Graham Bells Vej 21-23A DK-8200 Aarhus N Tif. +45 8741 3100 Fax +45 8741 3131

Fax +45 8741 3131 info@guldmann.com www.guldmann.dk

Guldmann Inc. 14401 McCormick Drive, Unit A

Tampa, FL 33626
Tel. 800 664 8834
Tel. 813 880 0619
Fax 813 880 9558
info@guldmann.net
www.guldmann.net

