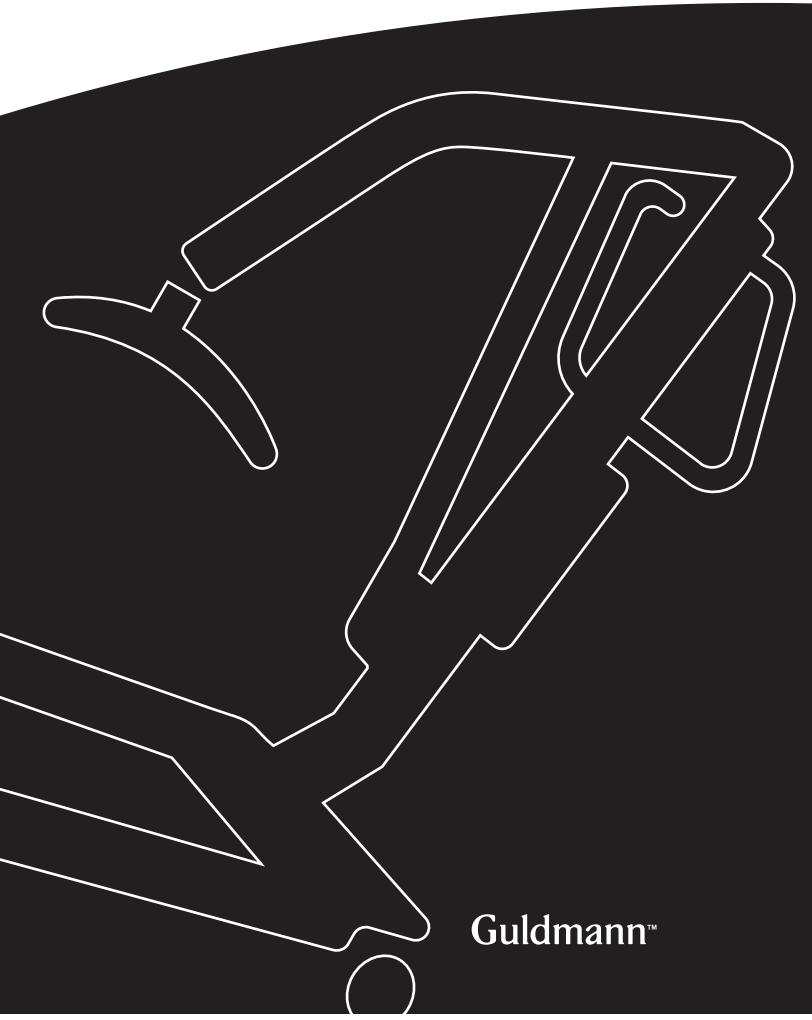
GB/US . . . . GL5.2 mobile lifter

User manual – vers. 102.0

MD CE



Guldmann™

GL5.2 mobile lifter

Item nos:
5623xx

1.00 Manufacturer

V. Guldmann A/S.
Graham Bells Vej 21-23A
DK - 8200 Aarhus N
Tel. +45 8741 3100

2.00 Intended Purpose

GL5.2 is intended for lifting and transferring a person with disabilities.

3.00 Area of use

GL5.2 is suitable for professional use in hospitals, nursing homes, rehabilitation centers, institutions and in private homes and buildings, where operators with medical/clinical training are continually on site or on call.

4.00 Conditions for use

The Guldmann mobile lifter GL5.2 is an all-round lifter, it can be used indoor whenever elderly and handicapped people have to be lifted or moved. The lifter is equipped with Guldmann lifting hanger or with another suitable hanger.

Accessories consist of Guldmann lifting slings in various sizes and models.

When the mobile lifter is used the assumption is that:

- The lifter will be operated by a qualified person.
- The mobile lifter is moved at a maximum speed corresponding to normal walking speed.
- The Guldmann mobile 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.

4.01 Where to use GL5.2

GL5.2 is designed to 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.

4.02 Warning

Read the user manual fully before using the lifter to familiarize yourself with the controls and safety features on the lifter.

- Do not exceed the maximum load.
- Use the lifter to lift a person only.
- Use the lifter on an even and level surface only. The lifter has limited mechanical stability when the lift is placed sideways on a slope.
- Only use a lifting hanger approved for use with the lifter.
- Don't lift/turn the lifting hanger in vertical direction during the mounting of the straps of the sling.
- 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.
- Do not use the lifter in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide
- Do not modify this equipment without the authorization from the manufacturer, including opening battery which can damage cell and generate excessive heat.
- The lifter is not intended to drive over steps and thresholds.
- The lifter needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in Chapter 15 EMC Information.
- Portable and mobile RF communications equipment can affect the lifter.
- The use of ACCESSORIES, transducers and cables other than those specified, with the exception of transducers and cables sold by Guldmann A/S of the lifter as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the lifter.

- The lifter should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, the lifter should be observed to verify normal operation in the configuration in which it will be used.
- In case the battery is too hot, disconnect it, evacuate the room, and wait for 2 hours before taking further steps
- Risk of entrapment between manual emergency lowering ring and sealing ring of actuator
- Risk of entrapment between the legs and the chassis when adjusting the legs.

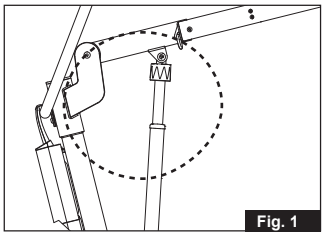


Fig. 1

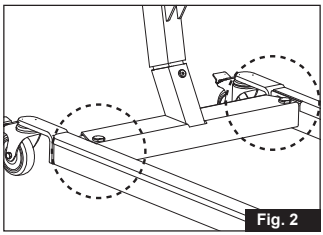


Fig. 2

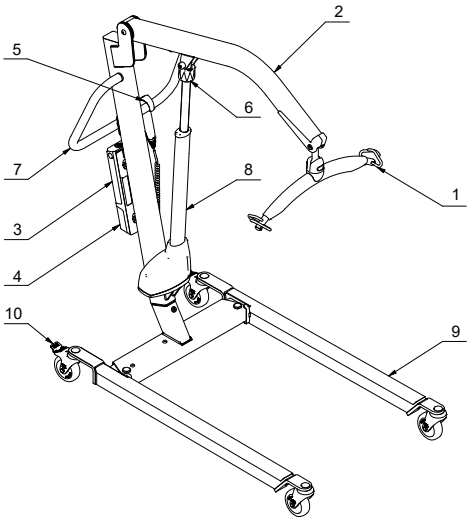
4.03 Important

- Always plan your lift before commencing.
- Only use slings that are designed to be used with the mobile 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.
- Any serious incident that occurred in relation to this device should be reported to the manufacturer and the local competent authority.

5.00 Definitions

1. Sling attachment hooks
2. Lifting boom
3. Battery
4. Control box
5. Hand control
6. Emergency lowering manual (option)
7. Push handle
8. Lifting actuator
9. Chassis leg
10. Brake/release

Accessories can be found in the Guldmann product catalogue.



5.01 Accessories for the lifter

Lifting slings
Ask for special brochure from supplier or manufacturer.

6.00 Unpacking and preparation of the lifter

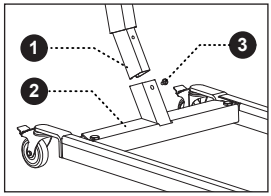
Visual check of lifter
If the packaging is damaged on receipt, each part of the lifter must be carefully examined for visible defects or deficiencies. In case of suspected damage, do not use the lifter until authorized by qualified service staff or the Guldmann Service Team.

6.01 Assembly instruction

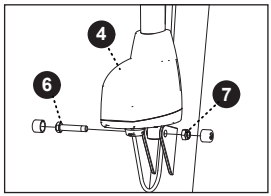
Guldmann recommends that the person making the assembly of the mobile lifter have a basis mechanical understanding.

Unpack the lifter on a level surface and gently remove cable ties and protective-foam.

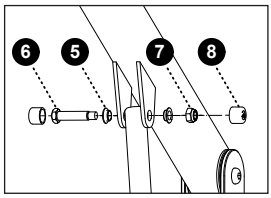
Assembling mast/chassis – electrical
Loosen screw *(pos. 3)* fitted to mast. Position the mast *(pos. 1)* in the Chassis *(pos. 2)*. Make sure that the mast hits the chassis in the bottom of the chassis tube, tighten screw using an M5 Allen key. To dismantle, remove screw to pull mast out of base. Retighten screw in mast.



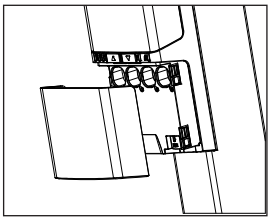
Fitting actuator
Fasten the actuator base *(pos. 4)* using the attached screw *(pos. 6)* with nut *(pos. 7)*.
Fasten the actuator top *(pos. 4)* using the attached washers *(pos. 5)* and screw *(pos. 6)* with nut *(pos. 7)*.
Tighten screw and nut with 17 mm spanners.



Complete by adding protective caps *(pos. 8)* on nut and bolt.

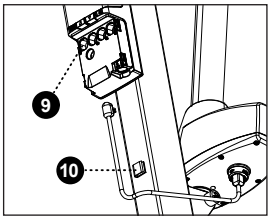


Mounting of connectors for motors
Start by opening cable cover by sliding down and straight out.

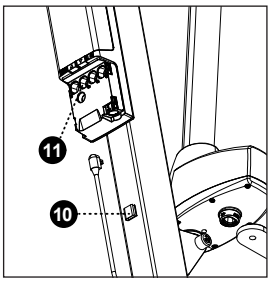


Insert connector from the lifting actuator to port 1 *(pos. 9)* on the control box.

Insert the cable from the lifting actuator into the cable clips *(pos. 10)*.

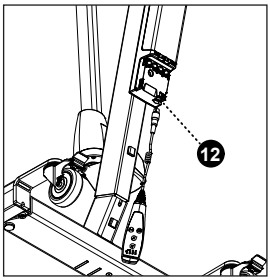


Insert connector for width adjustment motor to port 2 *(pos. 11)* on the control box. Insert the cable from the width adjustment motor into the 2 cable clips *(pos. 10)*.

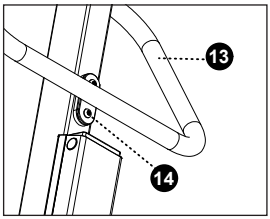


Mounting of the hand control
Connect the hand control to the DIN port on the control box *(pos. 12)*.

Push cable cover back on directly over designated snaps.



Fasten push handle *(pos. 13)* to the mast by tightening the two screws *(pos. 14)*.



Batteries
The batteries supplied with the lifter are not fully charged on delivery.
The battery pack must be charged before use. A full charge is recommended, duration approximately 4 hours.

6.02 Checklist before use

- The lifter must be off charge.
- Before first use the service indicator must be reset, done by pressing up and down button at the same time for 5 seconds.
- 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 hand control is illuminated when the lifter is activated.
- Check that the emergency stop and lowering is working *(See section 5.02 safety features)*.
- Make sure the lifter is running freely.
- Check the slings for damage or fraying.

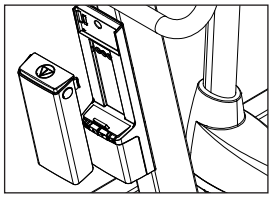
Once you have fitted the sling *(see section 8.01 - How to use the sling)* you are ready to lift.

With the user in a seated position
- If the user is in a wheelchair or commode chair the brakes must be applied.
- Open the lifter's chassis leg width adjustment to allow access around the chair.

Working with the Mobile 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 forward and backwards 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.

6.03 Charging and installing battery

Before use, the battery needs to be fully charged. For details, see 6.04 Charging procedure.
Remove battery packaging and mount the battery on top of the control box. The battery is mounted and secured correctly after hearing a click.

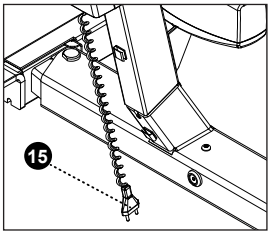


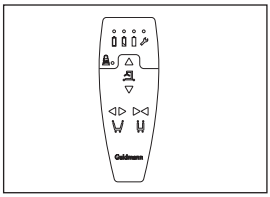
6.04 Charging procedure

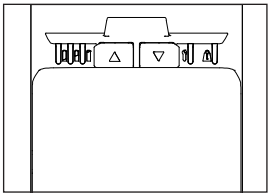
Recharge lifter every night or when it is not in use. This maintains the batteries and ensures a long life span. Avoid fully discharging the battery.

Recharging

- Recharge by plugging the power cord *(pos. 15)* into a wall socket. While charging, the green LEDs on the control box are lit.
- The green LED on the control box is lit during charging when the power cord is plugged in.
- The power supply is automatically disconnected when the lifter is fully charged. The green “Charge” LED turns off on the control box.
- Recharge when only 1 green LED positioned above a battery symbol on the hand control is lit.
- When the green LED of the empty battery indicator is lit on the hand control and the alarm sounds, there is limited use of the mobile lifter.
- The lifter cannot be used while charging.
- Do not recharge in wet areas/bathrooms.
- Maximum recharging time is approx. 4 hours.
- After recharging, please allow up to 15 seconds battery capacity calibration before using the lifter.
- When fully charged 3 green LED illuminates on both the control box and hand control.







Note!

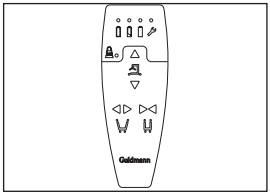
Ensure the wall socket is turned off when connecting the power cord to the control box to charge the battery.

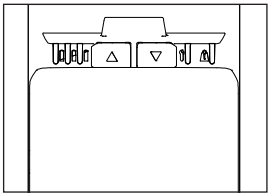
7.00 Operation

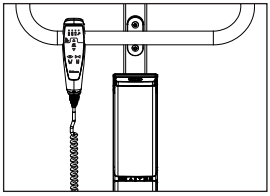
To lift/lower and adjustment of chassis leg in/out

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

◀ ▶
- On GL5.2 mobile lifter the leg spread width adjustment of the chassis is operated via the sideways arrows on the hand control. To switch between modes on hand control, one button needs to be released before activating the next.
- Use maximum width setting when lifting to/from wide chairs, or as necessary when lifting to/ from bed, toilet and floor.
- When not in use, the hand control is designed to be placed on the push handle.
- When maneuvering the lifter the chassis legs must be in the closed narrow position.
- The lifter will go into standby after 2 min. without use.

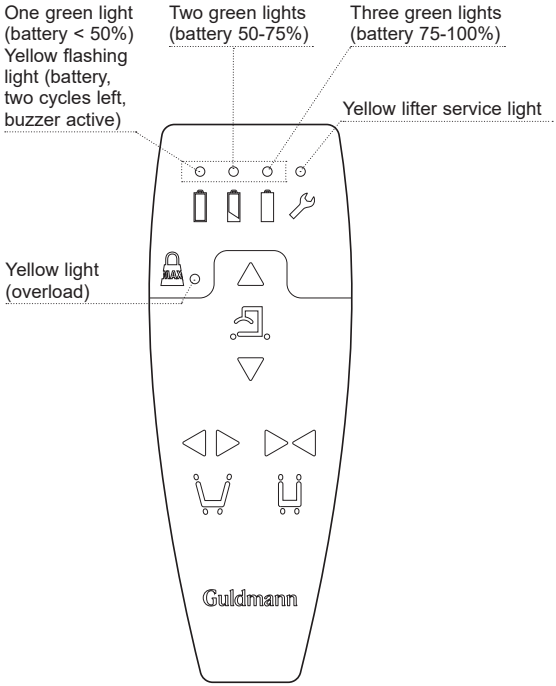




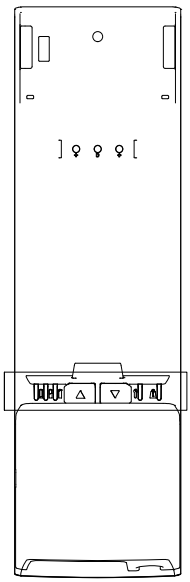


7.01 Indicator lamps and audio signals

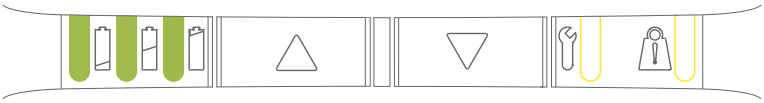
Status	Indicator lamps	Audio signals	Possible GL5.2 signals			
			Up	Down	Leg spread	Emergency down
Hand control						
Battery charged 75-100%	3 Green lights		x	x	x	x
Battery charged 50-75%	2 Green lights		x	x	x	x
Battery charged <50%	1 Green light		x	x	x	x
Critical low battery, two cycles left	1 Yellow light	Beeps at button activation	x	x	x	x
Lifter service	Yellow Is lit during use and 2 minutes after		x	x	x	x
Overload	Yellow Flashes 3 times + lights up for 10 seconds			x		x
Control box						
Charger	Green - flashes					
Charged	Green					

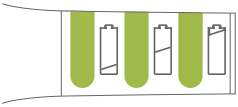
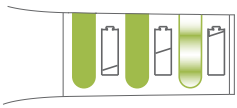
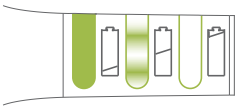
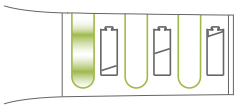
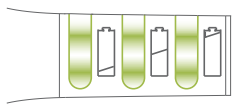
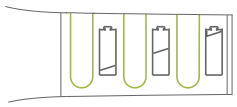


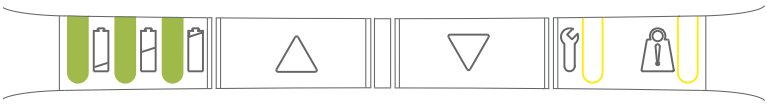
Hand control



Control box



LED 1 - LED 2 - LED 3	LED state (Not listed = off)	States while charging
	LED 1 - 3 constantly on	90 - 100%
	LED 1 + 2 constantly on LED 3 flashes slowly	65 - 90%
	LED 1 constantly on LED 2 flashes slowly	40 - 65%
	LED 1 flashes slowly	0 - 40%
	LED 1 + 2 + 3 flash slowly	Charging stopped due to low battery temperature, high battery temperature or other error conditions
	No light in LEDs	Charging stopped due to lost communication to battery

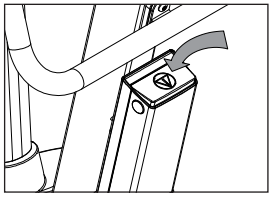


PRIORITY	LED 4 + LED 5	LED state (Not listed = off)	States in normal usecharging	Comments	Reset
0		LED 4 flashing according to Bluetooth pairing state*	Pairing Bluetooth	Not ready to drive	Wait until ready
1		LED 4+5 constantly on	Emergency stop activated	Not ready to drive	Reactivate emergency stop
2		LED 4+5 flashing fast (synchronous)	FATAL ERROR Cannot drive, has to be reset	No movement possible	Contact supplier prior to using lifter again
3		LED 5 flashing slowly	OVERLOAD	Momentary not ready to LIFT	Reduce load
4		LED 4 flashing slowly	Duty cycle guard	Momentary not ready to LIFT	Wait until ready
5		LED 5 constantly on	Position not to be trusted	Drive is possible	Drive into End of Service
6		LED 4 constantly on	Service needed	Drive is possible	Contact supplier prior to using lifter again

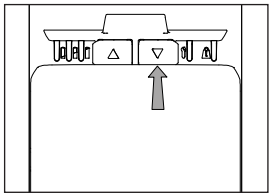
7.02 Safety functions

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, push red button on top of battery. When the emergency stop function is applied, the lifter ceases to function.
To release the emergency stop, take off battery by using thumb and index/middle finger to push buttons on battery sides, and pull battery out. To replace the battery again, grab battery on sides and steer battery base on steering pin, and push in place.

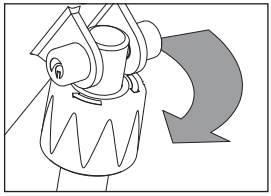


In order to disconnect the lifter from mains supply, pull the mains plug out of the power out-let.



Activating the emergency lowering function
If the lifter fails to lower, activate the following:

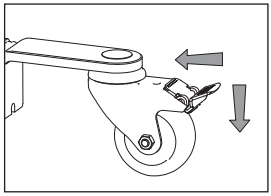
1. Press the arrow key ▼ on the control box. This functions as an emergency lowering in case the hand control does not work.



If the lifting boom does not lower

2. Turn the red knob on the lifting boom in the direction of the arrow (Optional)

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



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

In daily operating the lifters castors are not locked for the lifter to center itself according to the patient's line of gravity. If the brakes are activated in these situations, shearing of the patient's skin or the patient being pulled out the lifter is a potential hazard. Individual circumstances might lead to clinical assements where the lifter castors must be locked.
The brakes must be activated when the lifter is parked.

8.00 Use of Mobile lifter

Lifting hanger
The lifting hanger can be mounted on the mobile lifter without the use of any tools.

1. Hold the lifting hanger in the right hand and press the yellow button using the index finger as shown. The slot on the lifting hanger's top cover must face up *(fig. 1)*.

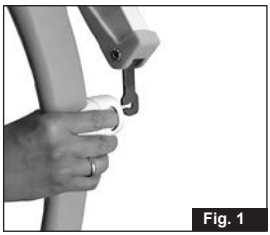


Fig. 1

2. Insert the lifting hanger in the slot on the side of the lifting hanger's top cover *(fig. 2)*.

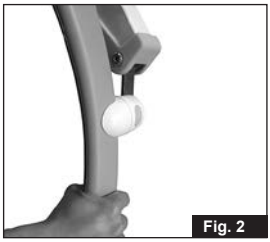


Fig. 2

3. Check that the yellow button has returned to its locked position by checking that it is flush with the cover of the lifting hanger and that the strap attachment can rotate freely *(fig. 3)*.


Fig. 3

8.01 How to use the Sling

Use slings with 4-6 lifting straps designed for fitting on Guldmann lifting hanger as shown in the sling manual.

The Lifter can be positioned under a bed. It can be moved through normal doors. The lifter can be used in wet areas, but must not be exposed to splash water. The lifter is protected against corrosion *(See 11.00 Environmental conditions)*. The lifter can be used for multiple users. When moving the lifter to another user, perform normal hygienic disinfection.

Lifting to and from a sitting position
When lifting from, e.g., a wheelchair, move the lifter towards the person to be lifted. Lifting boom and lifting hanger should be level with the chest and positioned above the middle of the thigh.
Position the lifting hanger parallel to the user's shoulders. Now fit the lifting sling to the lifting hanger. For instructions on how to fit the sling, see separate Guldmann Slings manual for details.

Lifting to and from a lying position in bed
Position lifting boom and lifting hanger right over the bed. Now pull the lifter back until the lifting boom and lifting hanger are positioned above the center of the person to be lifted. The lifting hanger and lifting boom should be parallel with the person's shoulders. Now fit the lifting sling to the lifting hanger. For instructions on how to fit the sling, see separate Guldmann Slings manual for details.

Working with the mobile lifter
To obtain a correct working posture when moving the lifter, the caregiver should always, by placing one leg in front of the other, push the lifter in a forward motion thus utilizing his/her body weight.
Turning the lifter should be carried out by two persons, otherwise, stand alongside the lifter and push on the side of the mast thereby minimizing the center of rotation. It is a good idea to make the heaviest point of the lifter the center of rotation. If there is limited space, you can use your foot to push on the chassis of the lifter in the direction you wish to turn.

Hook the top set of straps (from the back) to the hooks facing the user. Hook the lower set of straps (from the legs) to the hooks facing away from the user.

Lifting hanger, 4 attachment points

Caution!
Be careful when attaching the lifting sling's straps on the hooks. Check that the straps have been correctly placed in the lifting hanger's hooks. When pressing the up button on the hand control to lift the user, check again that all straps remain correctly placed in the lifting hanger's hooks (Fig. 1).

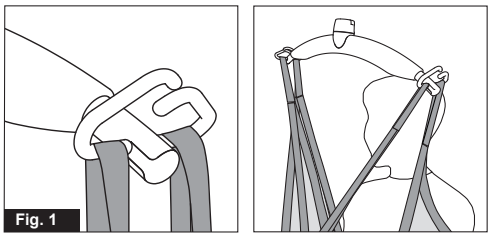


Fig. 1

Lifting hanger

Caution!
Be careful when attaching the lifting sling on the hooks. Check that the straps have been pulled completely through the rubber safety catch (A) and into place in the lifting hanger's hooks. When pressing the up button to lift the user, check again that all the straps remain correctly placed in the lifting hanger's hooks (fig. 1a and fig. 1b).

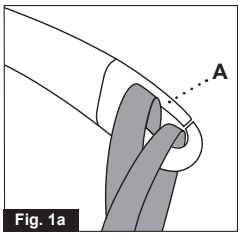


Fig. 1a

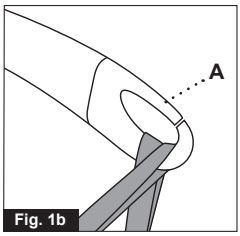
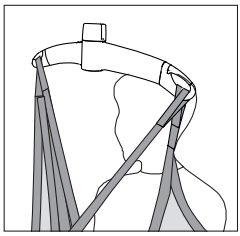


Fig. 1b



From a chair, wheelchair or other sitting positions
Place lifting sling behind user's back, e.g., between the back of the chair and the user's back.
The center band of the lifting sling should follow the user's spine. As for the slings type Active, the strap showing the size of the sling should be opposite the spine. Bring the leg straps along the outer thigh and then under the thigh between the back of the knee and the hip.
Now cross the leg straps in front of the user.
All four straps are now ready to be mounted onto the lifting hanger.

Lying position in bed, on a mattress or on the floor
Turn the user on his side. Place the high back sling so that its upper edge is flush with the top of the user's head. Put the sling on the user so that the center band follows the spine. Turn the user on his back and pull the sling out. Bring the leg straps under the thigh and cross them over.
All four straps are now ready to be mounted onto the lifting hanger.

If in doubt about how to use the sling, please contact your supplier.
Guldmann cannot be held responsible for any faults or accidents that may occur due to incorrect positioning of the lifting hanger, or for reasons of inadequate attention paid by helpers or the user.

8.02 Cleaning and disinfection

We recommend that the products and the parts patients and caregivers can come in contact with, are cleaned with a damp cloth using warm water and a mild soap solution.

When disinfection is needed, use disinfectant wipes with up to a 85% solution of isopropyl, or a damp cloth using warm water and a disinfectant cleaner, e.g., an chlorine dissolving up to 1500 ppm.

If other chemicals and/or liquids with higher resolution should be used to clean or disinfect these products, please contact Guldmann providing the item´s safety sheet chemical composition for consideration.

Caution: Take great care to ensure that no liquids get inside the lift. The lift is not waterproof. Failure to protect the lift from liquids may result in damage to the lift and/or may cause personal injury.

9.00 Troubleshooting

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

1. **Does the green or yellow LED on the hand control light up when the control buttons are activated?**

   Yes see point 6.
   No no light visible – see point 2.
   No only yellow light visible – see point 3.
   No yellow service light visible or audible “Beep”– see “indicator and audio signals matrix”

2. **Is the battery mounted on 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 or charge the battery.

4. **Is the emergency stop activated?**

   Yes To release the emergency stop, take off battery by using thumb and index/middle finger to push buttons on battery sides, and pull battery out.
   To replace the battery again, grab battery on sides and steer battery base on steering pin, and push in place.
   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?

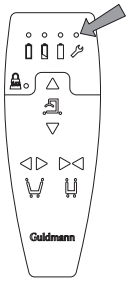
Yes see point 5
No fit connector

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

10.00 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 life span of 10 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.



No part of the equipment shall be serviced when in use with a patient.

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.

10.01 Service check of the mobile lifter – All-round

During the inspection a service report shall be made, describing what has been checked and exchanged.
Worn or defective parts shall be replaced by new spare parts from V. Guldmann A/S.

1 Visual check of the product
- Check the product for wear and tear
- Check the product for any deformity
- Check that the product does not show any other deficiencies.

2 Lifting motor/actuator
- Check the lifting motor/actuator for visible outer damage and leaking oil as well as any abnormal sound during operation.

3 Test of the product, as during normal use
- Check all functions on the product, with and without load, (Ie. Up, down, forward, backward, out and in).
- Check the emergency lowering is operational.
- Check the emergency stop is operational.
- Check the charging indicator is operational.

4 Check the electrical condition of the products
- Check the batteries and measure the:
  - Input/Voltage
  - Output/Voltage
- Check electrical functions and signals
- Check all wirings for errors and defects
- Check wire lead-ins
- Check all possible conections, plugs etc.

5 Check the mechanical condition of the product
- Clean the product for dirt and other impurities
- Inspect and evaluate the vital parts of the product
- Exchange defective and worn parts of the product
- Check and tighten all moving parts
- Grease the product.

6 Point 3 is carried out one more time as a control function

7 Have new errors or problems arisen in point 7?
- If new problems have arisen, go back to point 3
- If no problems have arisen, finish the inspection.

8 When a service inspection including service work or exchange of components has taken place, the final check should comprise a weight test with the product's nominal load.

11.00 Environmental conditions

Operation
The products operational environment:
– Operation temperatures between +10°C and +35°C (50°F and 95°F)
– A relative air humidity of between 30% and 70%
– An air pressure of between 700 hPa and 1060 hPa

For safety reasons, please adhere to indicated charging and operation temperature.

Information is illustrated by symbols on packaging including:
– Fragile
– This side up
– UN 3481 Li-Ion battery

Beside temperature, the same environmental conditions apply for transportation and storage.
– Transport and storage temperatures between -10°C and +40°C (14°F and 104°F)

Symbols on the packaging:

Transportation and storage
The lifter can be dismantled for transport and storage.

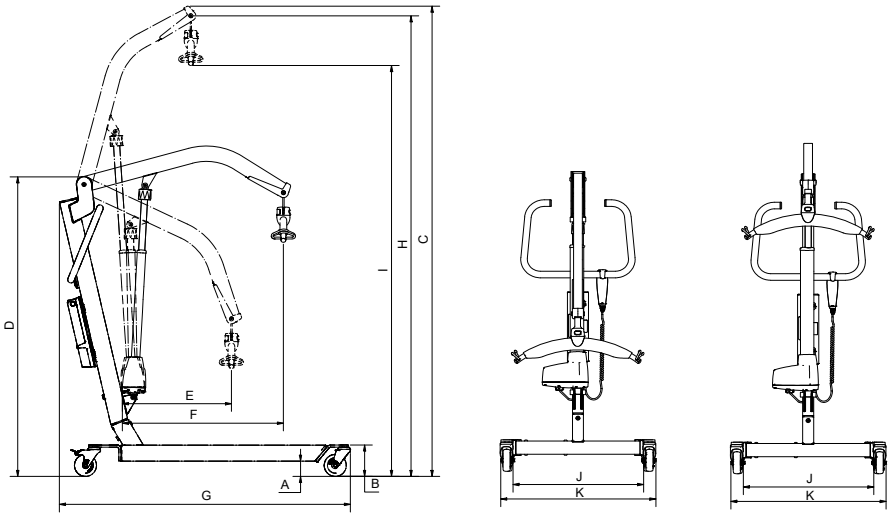
How to pack the lifter for transport
Guldmann recommends that the dismantled lifter is always transported in its original packaging.

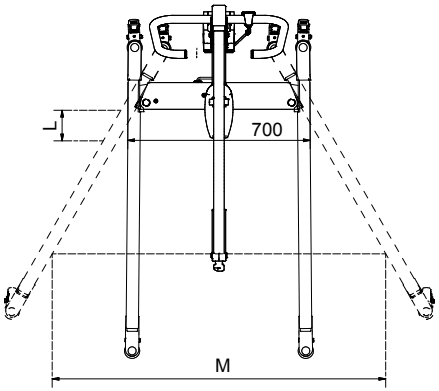
Storage of mobile lifter
The mobile lifter should be stored in a dry room, where the humidity does not exceed 70%. The mobile lifter must never be stored in bathrooms and similar areas.

Always activate emergency stop when the active lifter is put on storage.
If the lifter is not used for a long period, it can be necessary to periodicly check or charge the battery.

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

12.00 Technical specifications





A . . . . . 69 mm x)
B . . . . . 143 mm x)
C . . . . . 2013 mm x)
D . . . . . 1365 mm x)
E . . . . . 229 mm
F . . . . . 518 mm
G . . . . . 1325 mm
H min/max . . . . . 664/1967 mm x)
I min/max . . . . . 456/1759 mm x)
J min/max . . . . . 530/1300 mm
K min/max . . . . . 695/1410 mm
L . . . . . 120 mm
M . . . . . 1090 mm

x) If wheels Ø 80 mm are used, deduct 25 mm

Functions
Lifting capacity, max . . . . . 155/205 kg

Operation
Lift . . . . . Electric
Width adjustment . . . . . Electric

Weight
Totally . . . . . 44 kg
Chassis . . . . . 22 kg
Mast and lifting boom incl. control box & battery . . . . . 22 kg
Hand control . . . . . 0.25 kg

Turning radius
Turning radius . . . . . 1460 mm

Safety Features
Emergency stop . . . . . Yes
Emergency lowering . . . . . Yes, electronic. Mechanical on request
Protection against trapping . . . . . Yes

Electrical parts
On/off . . . . . Automatically
Integrated Power supply for charging
Input . . . . . 120-240 Vac, 50-60 Hz, 30VA
Battery, replaceable Li-Ion . . . . . 25.2 V / 2.9 Ah
Charging time . . . . . Max. 4 hours
Consumption/power of actuator . . . . . 24V, max 8A
Duty Cycle . . . . . Max 10%, max. 2 min on, 18 min off

Class of tightness

Mobile lifter. . . . . IP 30
Hand control. . . . . IPX 4
Integrated Power supply . . . . . IPX 6
Battery . . . . . IPX 6
Actuator . . . . . IPX 4

Labelling

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

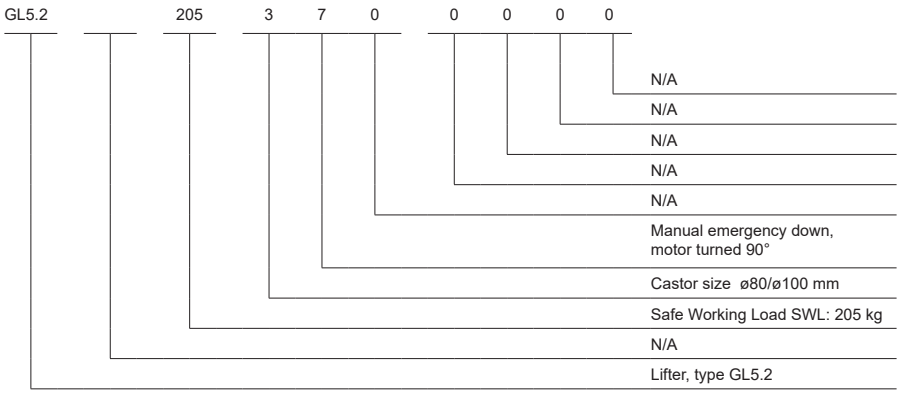
Classified

Acc. to ISO 9999 . . . . . .12 36 03

13.00 Product configuration table

GL5.2 mobil lifter, configurations									
Guldmann lifter type	Product line	Load in kg	Castors type	Actuator type	Additional functions	Scale module	CLM module	Service module	User interface
GL5.2	(x)	xxx	x	x	x	x	x	x	x
GL5.2		155	3	7					
		205	3	7					

Example: GL5.2 205 370 0000



Castor type
3 = 80 mm castor
4 = 100 mm castor

Actuator type
5 = Mechanical emergency down
6 = Mechanical emergency down – motor turned 90°
7 = W/O Mechanical emergency down
8 = W/O Mechanical emergency down – motor turned 90°

14.00 Labelling

Pictograms/labels used on product

Read the manual before use

CE-marking

Medical Device Class I in accordance with EU MDR Regulation

Type B in accordance with EN 60601-1

Battery condition and charging

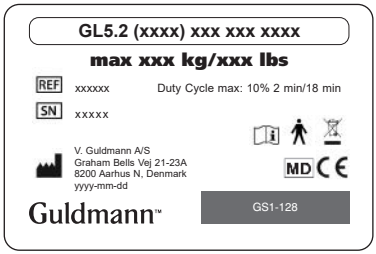
Must not be disposed of as standard household waste, but must be recycled.

Lifting boom vertical up and down movement

Leg adjustment

Examples of labels

Serial number label

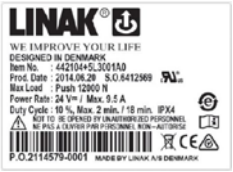


Hand control

Control box

Battery

Actuator



15.00 EU-Declaration of conformity

The product is manufactured in compliance with regulation (EU) 2017/745 of the European parliament and of the Council of 5 April 2017, as medical device Class I.

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.

17.00 EMC Information

Tabel 1

Guidance and manufacturer's declaration – electromagnetic emissions

The GL5.2 is intended for use in the electromagnetic environment specified below.
The customer or the user of the GL5.2 should assure that it is used in such an environment.

Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The GL5.2 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	The GL5.2 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Tabel 2

Guidance and manufacturer's declaration – electromagnetic immunity

The GL5.2 is intended for use in the electromagnetic environment specified below.
The customer or the user of the GL5.2 should assure that it is used in such an environment.

IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV differential mode ± 2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0,5 cycle	<5 % U_T (>95 % dip in U_T) for 0,5 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the GL5.2 requires continued operation during power mains interruptions, it is recommended that the GL5.2 be powered from an uninterruptible power supply or a battery.
	40 % U_T (60 % dip in U_T) for 5 cycles	40 % U_T (60 % dip in U_T) for 5 cycles	
	70 % U_T (30 % dip in U_T) for 25 cycles	70 % U_T (30 % dip in U_T) for 25 cycles	
	70 % U_T (30 % dip in U_T) for 25 cycles	<5 % U_T (>95 % dip in U_T) for 5 s	
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	The power frequency magnetic field should be measured in the intended installation location to assure that it is sufficiently low.

NOTE U_T is the a.c. mains voltage prior to application of the test level.

Tabel 4

Guidance and manufacturer's declaration – electromagnetic immunity

The GL5.2 is intended for use in the electromagnetic environment specified below.
The customer or the user of the GL5.2 should assure that it is used in such an environment.

IMMUNITY test	IEC 60601 TEST LEVEL	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2,5 GHz	3 Vrms 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the GL5.2, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d=1,2\sqrt{P} d=1,2\sqrt{P}$ 80 MHz to 800 MHz $d=2,3\sqrt{P}$ 800 MHz to 2,5 GHz Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey [a] should be less than the compliance level in each frequency range [b] Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

[a] Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the GL5.2 is used exceeds the applicable RF compliance level above, the GL5.2 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the GL5.2.

[b] Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Tabel 6

Recommended separation distances between portable and mobile RF communications equipment and the GL5.2

The GL5.2 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the GL5.2 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the GL5.2 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter m**		
	150 kHz to 80 MHz d=1,2√P	80 MHz to 800 MHz d=1,2√P	800 MHz to 2,5 GHz d=2,3√P
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

18.00 Warranty and service conditions

A. 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.

The warranty does not cover any part of the equipment that has been subject to damage or abuse by the user or others. The warranty does not cover any part of the equipment that 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.

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 certified technician. Any parts or components repaired or replaced by a Guldmann certified technician will be guaranteed for the remainder of the Warranty Period.

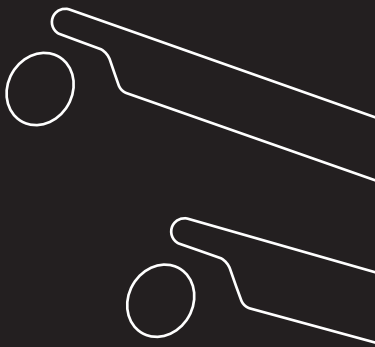
Only for USA
This warranty shall be null and void if the equipment is operated and maintained in any manner inconsistent with its intended use or the instructions provided with the product. Further, in order for the warranty to remain in effect for the full Warranty Period, all service to the equipment must be provided by a Guldmann Certified Technician. A Guldmann Certified Technician is a technician who has successfully completed Guldmann Service Training, and who holds a valid Service Training Certificate from Guldmann, and is in possession of a valid password to access Guldmann's Service and Information Console (SIC). A Guldmann Service Training Certificate and SIC password are valid for three years (only USA) from the date the technician is first certified. Thereafter, the technician must undergo re-certification training to obtain a new valid certificate and password. Any parts or components repaired or replaced by a Guldmann Certified Technician will be guaranteed for the remainder of the Warranty Period. In the event the warranty is rendered null and void, the purchaser shall indemnify and hold Guldmann harmless of and from any and all claims or liability arising as a result of equipment malfunction or misuse.

B. 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



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