taylordolman

GB/US .... GHZ Ceiling Hoist

User manual – vers. 2.00

CE

Guldmann™

GHZ Ceiling Hoist

Item nos:
556xxx

1.00   Purpose and intended use

1.01   Manufacturer
V. Guldmann A/S
Graham Bells Vej 21-23A
DK-8200 Aarhus N
Tlf.   + 45 8741 3100
Fax   + 45 8741 3131
www.guldmann.com

1.02   Intended use
GHZ is a ceiling hoist which is used for lifting and moving a person with disabilities in the home care sector, nursing homes, hospitals etc. The GHZ must not be used outdoor and in strongly corroding environments such as swimming pools.

1.03   Conditions for use

The use of the GHZ is subject to the following:
- The GHZ should only be used by trained personnel.
- The maximum load limit indicated on the hoist must never be exceeded *(section 1.05)*
- The instruction offered by Guldmann to all customer groups in connection with the purchase of a ceiling-mounted hoist has been received.
- The helper pays attention to the well-being of the user when using the hoist.
- The hoist is used in Guldmann rail systems which are installed, tested and approved according to DS/EN 10535 and Guldmann's stipulations.
- Only technicians who have been certified by Guldmann may install and test the rail systems.
- The hoist is used with a Guldmann lifting hanger *(section 1.10)*.
- The hoist is used with a Guldmann lifting sling or with other suitable slings *(section 1.11)*.

1.04   Important/Precautions

- Read the instructions carefully before using the hoist and in connection with cleaning and service of the hoist.
- The hoist's maximum load must never be exceeded.
- The hoist may only be used to lift a person.
- The red strap for the emergency stop and the emergency lowering must be adjusted to the helper's reach, and must not be removed.
- If a defect appears during use of the hoist, stop using the hoist and contact the Guldmann Service Team for repairs.
- The hoist is controlled by a microprocessor PCB, which can be damaged by static electricity if touched without the necessary precautions, (*see point 1.09)*

The electronics may only be serviced by Guldmann approved service technicians.
- The user may not hold their hands around the lifting strap during lift and transfer.
- The lifting hanger must not be mounted or replaced when the hoist is positioned over the patient.

Re: EMC
If electromagnetic or other influences occur between this product and other products, these products must not be used together.

1.05   **Load limits on GHZ system**
Read the label which indicates the maximum load limits for each component. The component, e.g. lifting hanger, lifting sling, etc. labelled with the lowest load limit determines the maximum load limit for the entire system.
This maximum load limit must not be exceeded.
Please note that the max load may change when different components are used, such as lifting hangers, lifting slings, etc.

1.06   **Unpacking and Preparation**

Visual check of the lifting module
If the lifting module is thought to be damaged upon reception, it must not be used until it has been checked and approved by a qualified person or the Guldmann Service Team.

Contents of the box
1. GHZ lifting module
2. Hand control
3. Power supply
4. Charging station
5. Bottom covers
6. Manual
7. Label for rail system

4
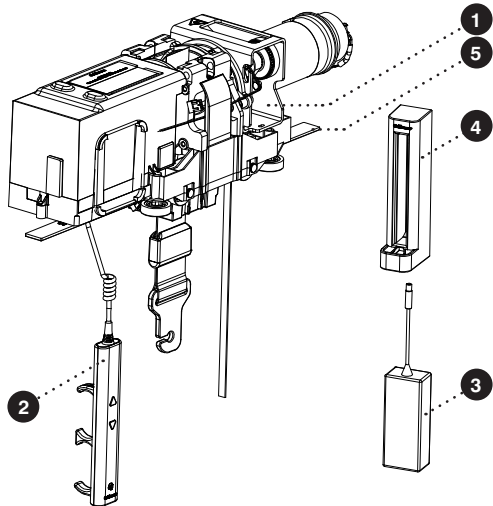
Button for reset of emergency stop

GHZ is delivered with the emergency stop activated in order to ensure that the battery is not being discharged during long-term storage. Reset the emergency stop by pressing the "RESET" button on the bottom of the hoist *(see point 2.04)*.

1.07   Installing a new GHZ lifting module in an existing rail system

Please notice when installing a GHZ in an existing rail system it must be ensured that:

- The rated max load of the rail system, must be equal or higher than the max load of the new hoist.
  – If there is no max load mentioned on the rail system, the rail system must then be checked according to the guideline in the installation manual (distance between bracket according to max load).
  – If the brackets are not visible, then a load test with 1,5 x max load of the hoist must be performed minimum 20 min.
    The deflection of the rails must not be higher than 1/200 of the length of the rail.
  – If it is not possible to do any of the above mentioned, please contact Guldmann or their representative.

1.08   Installing / deinstalling GHZ in the rail
See the installation manual for GHZ.

1.09   Power supply
GHZ is equipped with a battery that requires regular recharging.
The power supply supplied must *always* be used.

Safety concerning static electricity (ESD)
Service technicians and installers *must* use an ESD-safety package consisting of a mat, a ground wire, and a bracelet.
The technician/installer connects the mat to a grounding point, for instance a radiator or a water pipe. The technician/installer must then put on the bracelet and connect it to the mat. If it is not possible to find a grounding point, the mat and the bracelet must be used as a minimum.
Only then is it allowed to work with the PC Board or components where it is possible to come into contact with the PC Board.

Class II equipment
Mobile equipment is class II epuipment (marked with double-encassed symbol ▣) and can be connected to the mains direct by the user.
Equipment is disconnected from Supply Mains by detaching the mains plug from the wall outlet.

1.10   Installation of the Guldmann lifting hanger before use

Lifting hangers from other manufacturers

Guldmann shall not be liable for faults or accidents that may occur as a result of using lifting hangers made by other manufacturers.

If there is any doubt about the selection or use of a lifting hanger, please contact your supplier.

The lifting hanger can be installed to the lifting strap without the use of any tools.

1. Press the yellow button and hold it in while the lifting strap's hook is inserted into the opening of the top cover of the lifting hanger *(fig. 2a - 2b)*.

2. Release the yellow button *(fig. 2c)*

3. Rotate the strap attachment to a vertical position *(fig. 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.
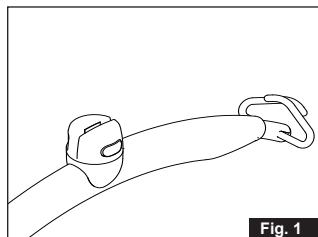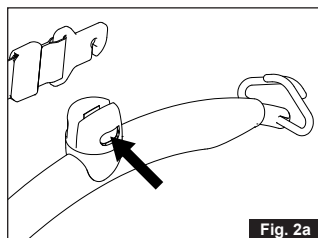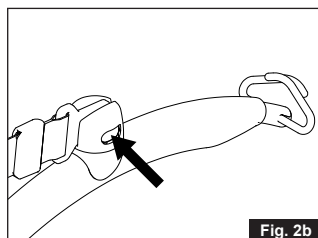
Fig. 1

Fig. 2a

Fig. 2b
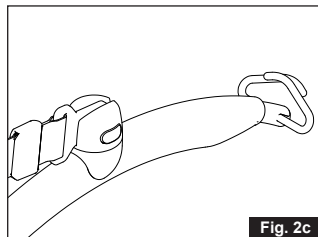
Fig. 2c
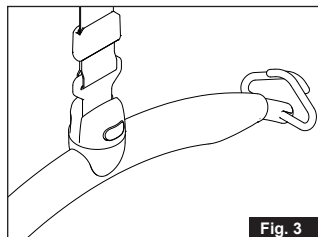
Fig. 3

1.11	**Lifting sling**

A lifting sling with four to eight lifting straps designed for mounting on hooks should be used when using a Guldmann lifting hanger.

Slings made by other manufacturers
Guldmann shall not be liable for faults or accidents that may occur as a result of using lifting slings made by other manufacturers.

If there is any doubt about the selection or use of a lifting sling, please contact your supplier.

Guldmann shall not be liable for faults or accidents due to incorrect use of the lifting sling, or for reasons of inadequate attention on the part of the carer or user.

Attaching the lifting sling
Place the straps from the lifting sling on the hooks on the lifting hanger. Start with the uppermost set of straps (from the back) and then take the lowest set of straps (from the legs).

GH 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
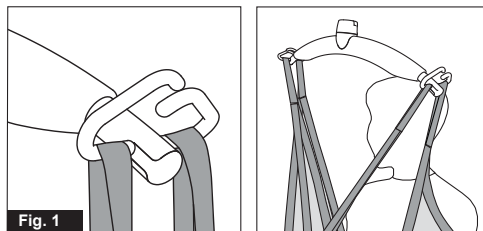
Lifting to and from a seated position
When lifting a user from e.g. a wheelchair, move the GHZ towards the person to be lifted. The lifting hanger should be at the same height as the user's chest and should not be moved further in over the user than to approximately mid-thigh position.

Place the lifting hanger parallel to the user's shoulders.

Place the lifting sling behind the user's back between the back of the chair and the user's back. The center marks of the lifting sling should follow the user's spine.

Lead the leg straps along the outer sides of the user's shins and beneath the thighs between the hollow of the knees and the hip joints. Cross the leg straps in front of the user.

All four lifting straps are now ready to be attached. The lifting sling can now be mounted on the lifting hanger.

Lifting to and from lying position in bed
Bring the lifting hanger over the centre of the person to be lifted. Place the lifting hanger parallel to the user's shoulders.

Turn the user onto his or her side. The Basic High sling should be placed so that its top is at the same height as the top of the user's head. Now position the sling over the user so that the center marks follow the user's spine. Turn the user onto his or her back and pull out the remaining part of the lifting sling. Place the leg straps beneath the user's thighs and cross them. All four lifting straps are now ready to be attached and the lifting sling can now be mounted on the lifting hanger. It is an advantage to elevate the head of the bed so that the user is sitting up.

For further information, please refer to the user manual for the lifting sling in question.

Important!
Only persons who have received competent instruction regarding the use of lifting equipment and fitting of slings should use the hoist.

Plan the move. Avoid leaving the user in the lifting sling unattended.

The hoist lifts quickly and powerfully. Before lifting, check that the user is completely free of his/her surroundings. The user's head, arms, hands and feet must not be in danger of becoming trapped. Be careful with any tubes and wires that are attached to the user. The user should not hold the lifting strap during the moving procedure as there is a risk of crushing between the strap's hook and the hoist. Check that the hand control and hand control cable is free of hanger, patient and other object before the hoist is activated up or down moved.

If the hoist is used correctly, the user should only be lifted to the extent that she/he is clear of the surface and should be moved at this height.

2.00   Description of functions

Information panel on the GHZ bottom surface.

Manufacturer and date

Green/yellow indicator lamp

Strap for activating emergency stop and emergency lowering device

Button for resetting the emergency stop

Designation of type and maximum load
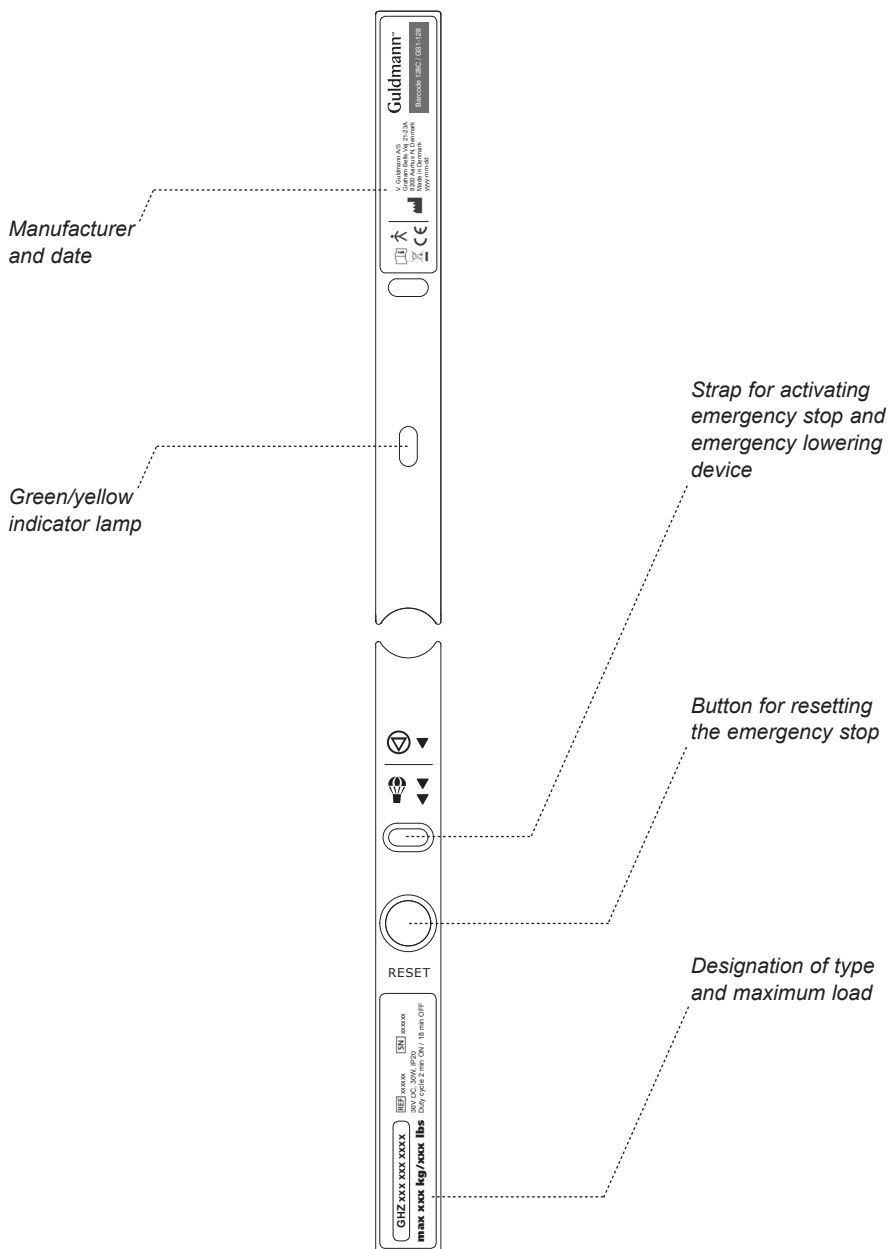
2.01 Pictograms

⃠ ▼   Emergency stop

☂ ▼▼   Emergency lowering function

RESET   Reset emergency stop

⚠   Danger - rotating parts

2.02 Indicator lamps and audio signals

Status	Indicator lamps	Audio signals	Possible GHZ Functions		
			Up	Down	Emergency lowering
Off – stand by	Off				
All OK	Green		✓	✓	✓
Low battery	Yellow		✓	✓	✓
Fault on hoist	Yellow	Beeps at button activation			✓
Battery critical low	Yellow			✓	✓
Over load	Green	Beeps at button activation		✓	✓
Hand control placed in charging station	On	3 beeps for charging			

2.03 Operation

Hand control
The GHZ is switched on automatically when a button on the hand control is pressed.

The GHZ is switched off automatically after approx. 8 minutes without activation.

GHZ
1. Lift
2. Lower

1
2
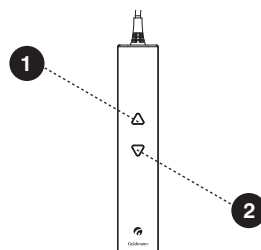
Note: There must be a load on the lifting strap corresponding to the weight of Guldmann's lifting hanger before GHZ's lowering function will operate.

Charging / connection
GHZ is recharged when the hand control is placed in the charging station. Always leave the hand control in the charging station when GHZ is not in use. This guarantees GHZ functionality and maintains the battery to ensure a long lifetime.

The power supply must be connected and switched on before charging can take place. A green indicator lamp on the power supply indicates it is connected and switched on.

Tilt the hand control and place it on the two pins on the charging station. Then push the rubber handle into the opening of the charging station. A click indicates that the hand control is placed correctly.

When the hand control is correctly placed in the charging station, you will receive an acoustic signal of 3 beeps. This means that the hoist is now charging.
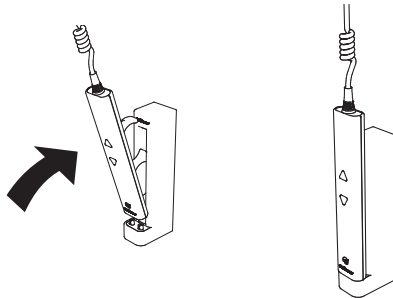
The indicator lamp on the bottom of the hoist turns yellow if the charge status becomes low. The GHZ then has a limited number of lifts available at a time and must be recharged.

Placing of the hand control
When GHZ is not in use the hand control must always be placed in the charging station. The hand control can also be placed on the lifting hanger if this is necessary in connection with a transfer.
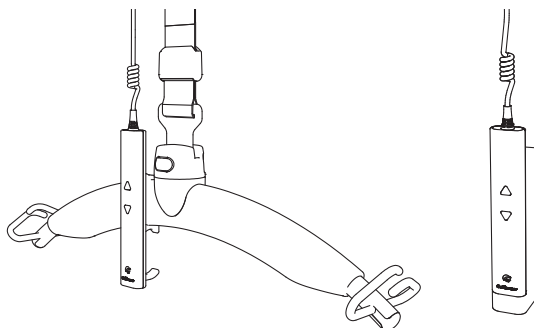
2.04   **Safety functions**

The emergency stop and emergency lowering device should only be used in an emergency. In the event that it is necessary to use the safety functions, the fault must be identified and rectified before the GHZ is taken into use again. Please contact your supplier.

Emergency stop and lowering strap
The red strap has the following functions:
- One pull: Emergency stop is activated.
- Constant pull: Emergency lowering is activated.
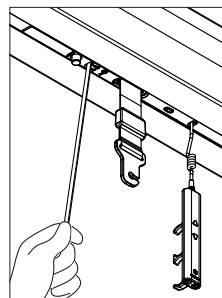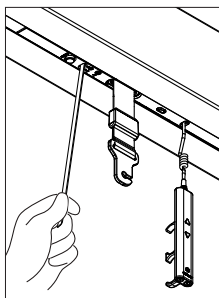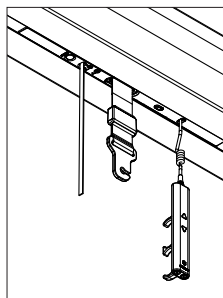
Emergency stop
If the hoist does not stop/react to the hand control when the hoist is in use, pull the red strap and the lifting/lowering functions (except emergency lowering) are deactivated.
When the emergency stop is activated, the hoist will not function. The green lamp is switched off.

Reset emergency stop

Reset the emergency stop by pressing the yellow button on the bottom of the hoist.

After deactivating the emergency stop, activate the hand control twice.
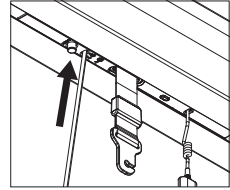
Emergency lowering function, electric

If the hoist fails, the electrical emergency lowering function is used to lower the user safely. The emergency lowering function is operated by a constant pull on the red strap that is used for the emergency stop.

When releasing the red strap, the emergency lowering function will be replaced by the emergency stop.

2.05   **Accessories**

Guldmann – Lifting slings and hangers

Obtain a product catalogue from Guldmann, or see our product range at www.guldmann.com where it is also possible to watch a video about the use of lifting slings and to download user manuals for our products.

Extension strap

The extension strap is used where the distance between the lower part of the rails and the floor exceeds 3.5 m. The extension strap is available as an accessory.

Battery

NiMH Battery 24V/2000mAh, Guldmann type number 550574.

Power supply

Power supply, Guldmann item number 554204.

Bracket for power supply

Bracket for power supply, Guldmann item number 551325.

Cable for power supply

Cable for power supply, Guldmann item number 554250.

Charging station

Charging station, Guldmann item number 552880.

Lifting strap

Lifting strap, Guldmann item number 550547.

Hand control

Hand control, Guldmann item number 552619.

Hand control extended cable

Hand control extended cable, Guldmann item number 553620.

3.00   Transport and storage

Guldmann recommends that the products are always transported and stored in the original packaging.

Key to symbols on the packaging:
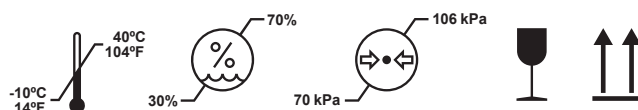
The products should be stored at:
– Temperatures between -10 and +40°C / 14 and 104°F
– A relative air humidity of between 30 and 70 %
– An air pressure of between 700 and 1060 hPa
– This side up

4.00   Maintenance and storage

4.01   Cleaning
We recommend that the product and the parts that patients and caregivers can come in contact with are cleaned with Novadan Des Wipes or Novadan Desinfect O.

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

Novadan Des Wipes: Is a disposable wipe for cleaning and disinfection of all types of surfaces, machines and instruments in the healthcare sector.

NB: Do never clean the hoist, hanger, trolley, rails etc. with strong acid, base or alcohol. Never clean the hoist in an autoclave.

Desifect O is effective against:	Novadan Des Wipes is effective against:
Microbial- & Virus test	
• Staphylococcus aureus (ATCC 6538) (EN 13697:2001) • Enterococcus hirae (ATCC 10541) (EN 13697:2001) • Escherichia coli (ATCC 10536) (EN 13697:2001) • Pseudomonas aeruginosa (ATCC 15442) (EN 13697:2001) • Candida albicans (ATCC 10231) (EN 13697:2001) • Swine plague - Bovine viral diarrhea virus (BVDV) (EN 14675:2006) • Swine and avian flue (Influenza A virus H1N1) (EN 14675:2006)	• Staphylococcus aureus • Escherichia coli • Proteus mirabilis • Pseudomonas aeruginosa • Candida albicans • MRSA • H1N1 • HBV (HIV) • HCV

Novadan product	Description	Microbial and Virus test	Application	Dosing	Frequency
Desinfect O	A broad-spectrum disinfectant system as tablets.	Staphylococcus aureus, Enterococcus hirae, Escherichia coli, Pseudomonas aeruginosa, Candida albicans, Swine plague - Bovine viral diarrhea virus (BVDV), Swine and avian flu. (Influenza A virus H1N1)	Tools apparatus (Remember to wash afterwards)	1 tablet –10 l of water Time before effect: 5 min.	Daily/ periodically
Novadan Des Wipes	Is a disposable wipe for cleaning and desinfection of all types of surfaces, machines and instruments within the healthcare sector and food industry.	Staphylococcus aureus, Escherichia coli, Proteus mirabilis Pseudomonas aeruginosa, Candida albicans, MRSA, H1N1 HBV (HIV), HCV	Lifting pool with adjustable handle, bed guard, remote control of beds, extension piece for bed guards, handle, polyester line for lifting pool.	Time before effect: 1 min. Apart from H1N1: 30 min	After every touching

4.02	**Storage**
	See 3.00
	For long-term storage of GHZ the emergency stop must be activated. This ensures that the battery is not being discharged.

4.03	**The owner's daily maintenance duty**
	Check the lifting sling for wear and damage before use.
	Do not use the lifting sling if it is damaged or defective.
	Do not use hoist if the lifting strap or the lifting hanger are damaged or defective.
	Contact your supplier and order a new lifting sling or a replacement of the lifting strap. Replacement of the lifting strap must only be performed by the Guldmann Service Team or by a qualified technician in accordance with Guldmann's instructions.

4.04	**Disposal of the GHZ including battery**
	Local and national regulations on environmentally correct recycling must be observed. Batteries (type NiMH) must always be delivered to an approved recycling point.

5.00	**Service and lifetime**

5.01	**Lifetime**
	The products have an expected lifetime of 15 years, on the condition of correct use and correct service inspections, see section 5.02.
	Replacement of components
	Replacement of batteries, PCBs and lifting straps must be performed by a qualified service technician or the Guldmann Service Team.

5.02	**Safety/service inspections**
	In accordance with international standard EN/ISO 10535 "Hoist for the transfer of disabled persons – Requirements and test methods" an inspection should be performed on the hoist at least once a year.
	Guldmann recommends that regular safety/service inspection is performed at least once a year with regard to the pattern of usage.
	Safety/service inspections of the products must be performed by a qualified service technician or the Guldmann Service Team. In connection with the purchase Guldmann may offer a service agreement for this inspection.
	During the safety/service inspection a report must be prepared on what was checked and replaced. Parts that are worn or defective must be replaced with new parts from Guldmann. Spare parts drawings and documentation can be obtained from the manufacturer or supplier.

Documentation/checklist regarding safety/service inspection can be obtained from the manufacturer or supplier.

5.03   **Troubleshooting**

The hoist does not respond to the hand control's keys
1. Check that the emergency stop is not activated *(see section 2.04)*.
2. Check that the hoist has power supply and that the battery is recharged *(see section 2.02)*.
3. Check that the power supply is switched on and connected to the charging station.
4. Place the hand control in the charging station and recharge the hoist *(see section 2.03)*.
5. Contact the Guldmann Service Team if the fault cannot be found and corrected.

6.00   **Classification**

CE marking

Type B in accordance with IEC/EN 60601-1

Read the manual before use

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

Class 2 equipment . . . . . Non-permanent installation without protective ground

The equipment is not suitable for use in the presence of flammable mixtures.

Degree of protection against harmful ingress of liquids (water)
Lifting module. . . . . IP 20
Hand control. . . . . IP 44
Charging station. . . . . IP 20
Power supply . . . . IP 20

Examples of labels

Lifting module

GHZ xxx xxx xxxx   REF xxxxxx   SN xxxxxx

max xxx kg/xxx lbs   36V DC, 30W, IP20
Duty cycle 2 min ON / 18 min OFF

V. Guldmann A/S
Graham Bells Vej 21-23A
DK-8200 Aarhus N
Made in Denmark
yyyy-mm-dd

Guldmann™

GS1-128

Power supply   Lifting hanger   Hand control

SINPRO

SWITCHING POWER SUPPLY
MODEL NO .: HPU31B-110
INPUT : 100-240V ∿ 47-63Hz
          0.6-0.4A
OUTPUT : 36V ⎓ 0.83A max

CB

Indoor use only

LPS

E 230351

Efficiency Level V

EN 60601-1
IEC 60601-1

アビリティーズ・ケアネット株式会社

CAUTION
DO NOT OPEN
RISK OF ELECTRIC SHOCK
ATTENTION RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

RoHS   XX   MADE IN

GH Lifting Hanger
max xxx kg/xxx lbs

V. Guldmann A/S
Graham Bells Vej 21-23A
DK-8200 Aarhus N
Made in Denmark
yyyy-mm-dd

REF xxxxxx   LOT xxxxxx

Guldmann·

Barcode 128C / GS1-128

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

7.00 Technical specifications

GHZ Lifting modules, configurations									
Guldmann hoist type	Product line	Load in kg	Number of lifting straps	Number of lifting motors	Additional functions	Scale module	CLM module	Service module	User interface
GHZ	(x)	xxx	x	x	x	x	x	x	x
GHZ		255	1	1					Hand control : 0 IR : 1

Example: GHZ 255 110 0000

GHZ		255	1	1	0	0	0	0	0

GHZ   255   1   1   0   0   0   0   0

Hand control

N/A

N/A

N/A

N/A

1 lifting motor

1 lifting strap

Safe Working Load SWL: 255 kg

–

Ceiling hoist, type GHZ
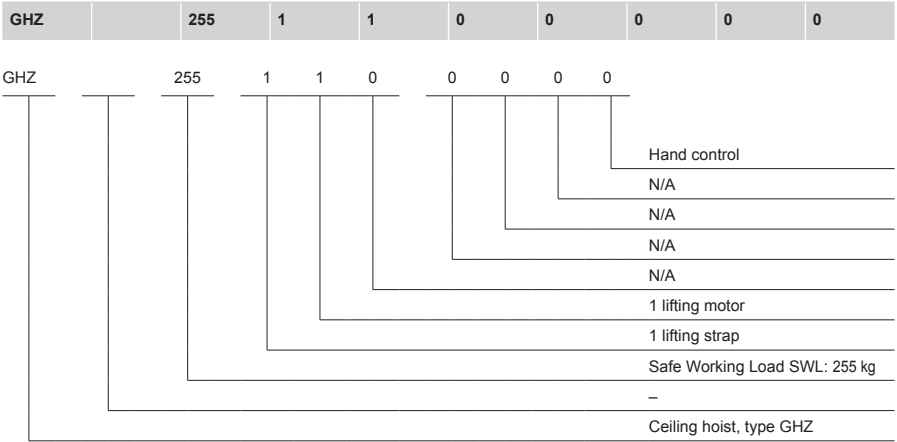
Functions

Lifting capacity, SWL . . . . 255 kg (560 lbs)
Operation . . . . Hand control
Sound level . . . . .63 dB (A)

Lifting speed

85 kg (187 lbs) load . . . . .40 mm/sec.
150 kg (330 lbs) load . . . . .40 mm/sec.
Max capacity load, SWL . . . . .40 mm/sec.
Max. 5 kg (11 lbs) load . . . . .40 mm/sec.

Weight and materials

SWL . . . . 255 kg (560 lbs)
Own weight . . . . 8.0 kg (17.6 lbs)

Covers, top and bottom . . . . Impact-resistant UL 94 V-0 flame
. . . . .retardant recyclable plastic

Dimensions

A . . . . .450 mm
B . . . . .172 mm
C . . . . .254 mm
D . . . . 2.500 mm

Depth of hoist . . . . .155 mm
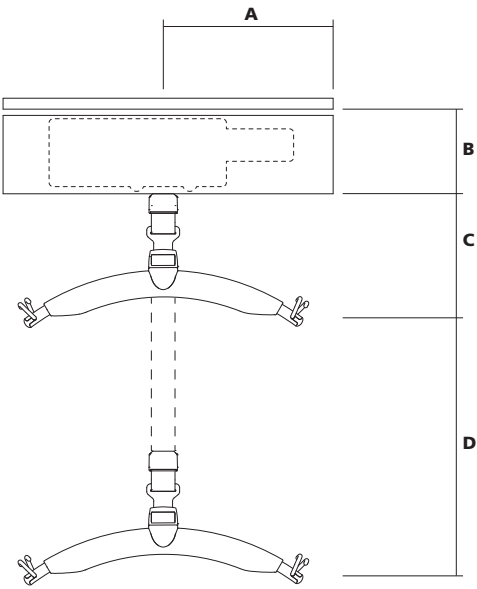
Safety

Emergency stop. . . . . Yes
Emergency lowering device. . . . . Yes, electrical
Control of lifting strap. . . . . Yes
Cut-off angle . . . . .10° along the rail
. . . . .45° across the rail

Electronics

On/off . . . . .Automatic when used. Soft start/stop
Overload protection . . . . Automatic
Low battery protection . . . . Automatic
Power supply . . . . 36 V DC, 0.83 A
Supply voltage, transformer. . . . . .100-240 V AC, 47-63 Hz

Battery . . . . 24 V NiMH
SWL: 255 kg (560 lbs). . . . . 2.0 Ah

Continuous operation with short time loading with
3 hours without recharging . . . . 10/90 % (2 min. operation/18 min. pause)

Max number of lifts in series with:
85 kg (187 lbs). . . . . 55/1000 mm
SWL: 255 kg (560 lbs). . . . . 21/1000 mm

Max charging time at 25ºC (77ºF):
SWL: 255 kg (560 lbs). . . . . 3 hours

Operating temperature. . . . . 10°C - 35°C (50°F - 95°F)

Degree of protection against harmful ingress of liquids (water)
Lifting module. . . . . IP 20
Hand control. . . . . IP 44
Charging station. . . . . IP 20
Power supply . . . . IP 20

8.00   **EC-Declaration of conformity**

The products are manufactured in compliance with the Council Directive
93/42/EEC of 14 June 1993 – with amendments, as medical device class 1.

9.00　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.

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 main-
tained 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 sub-
ject 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 Guld-
mann. Accordingly, additional statements such as advertising or presentati-
ons, 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 replace-
ment. 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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