

# **INSTALLATION AND OPERATION INSTRUCTIONS**

# Nimble204

Portable ceiling Lifter



# **Table of Contents**

Introduction	3
Application	
Description	
Symbols Used in this Manual	
Markings	
Safety Instructions	5
Technical Specifications for Nimble204	6
Anatomy of the Nimble204	7
Basics in Transferring a Patient	9
Installing the Nimble204 in the Gantry	9
Installing the Endstop on the Gantry	10
Labeling the Tracks	11
Using the Reacher Bar	12
Magnetic Connection of the Hand Control to the Nimble204	12
Operating the Nimble204	13
Charging the Nimble204	13
LED and Buzzer Functions	14
Emergency Stop	15
Emergency Lowering	16
Manual Emergency Lowering	16
Overspeed Cam	16
Cleaning and Disinfection	17
Troubleshooting	17
Inspection and Maintenance	18
Nimble204 Accessories	19
GoTrack Systems and Support Structure	20
Environmental Conditions	21
Electro-Magnetic Compliance Data for GoLift Portable450	22
Warranty	26

#### Introduction

#### APPLICATION

The primary purpose of the Nimble204 portable system is to safely lift and transfer a patient within an institutional setting or at home. The Nimble204 allows these transfers with as little effort as possible for the caregiver, while providing dignity to the patient. A ceiling lift is simple and safe for the caregiver as well as the patient. The lift can be easily moved by a caregiver along the track from one location to another.

#### DESCRIPTION

The Highgate Healthcare Nimble204 portable lifter is an ideal ceiling lift system designed for routine transfers of patients. The most compact portable lift in its class, the Nimble204 is designed to be aesthetically pleasing to both the caregiver and the patients. In an effort to address infection control requirements, we gave careful consideration to the smooth edges and rounded corners of our ceiling lift, carry bar and hand control. When you look under the cover of this compact lift, you will find an impressive set of all metal gears and state-of-the-art battery technology that will allow the caregiver to safely, and effortlessly transfer a patient weighing up to 450 lbs on a single lift.

The Nimble204 weight capacity is 450 lbs. This weight limit must not be exceeded.

The Highgate Healthcare Nimble204 can be installed in a variety of track profiles (the trolley can becustomized to fit these track profiles) and it also works seamlessly with the Highgate Healthcare Patient Lift Pendant (PLP) System.

#### **CONTENTS OF PACKAGING**

- a. Highgate Healthcare Nimble 204 Portable Lifter
- b. Hand Control
- c. Charger
- d. Owner's Manual
- e. Portable Trolley

Upon receipt of the packages, verify it against the packing slip to ensure the shipment is complete and inspect the equipment for possible damage. If there is any damage, DO NOT USE the equipment and notify the carrier immediately to file a claim. Provide complete information concerning damage claims or shipping errors to Highgate Healthcare. Include all equipment identification numbers along with a description of the damaged parts.



# Introduction

Symbol	Reference	Title
	ISO 7000-0434A	Caution risk of danger
CUSUDUS	TUV	Certified by TUV
★	IEC 60417-5840	Type BF Applied Part
CE	CE	Certification of Conformity
	ISO 7010-M002	Refer to instruction manual/booklet
	Amico Mobility	Emergency Lowering
	Amico Mobility	Emergency Stop

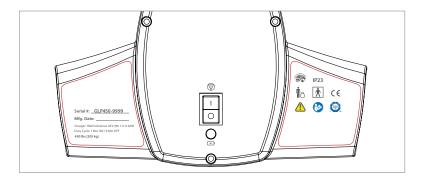


This symbol is intended to alert the user of hazard or unsafe practices, which couuld result in serious bodily harm.

# **MARKINGS**

The Nimble 204 is designed to comply with the following Standards

Standard(s):	CAN/CSA-C22.2 No. 60601-1:08 Medical Electrical Equipment – Part 1: General requirements for basic safety and essential performance. ISO10535:2006 Hoists for the transfer of disables persons – Requirements and Test Methods. CAN/CSA-C22.2 60601-1-11:2-15 home use environments.
Product:	Nimble204
Brand Name:	Nimble204
Models	450 lbs





## **Safety Instructions**



READ THESE INSTRUCTIONS CAREFULLY OR SERIOUS INJURY MAY OCCUR

- The Nimble204 must be installed only by personnel authorized by Highgate Healthcare.
- · Do not use this equipment prior to understanding the contents of this manual.
- Contents of this manual are subject to change without prior notice to users. Keep for future reference.
- Never place the Nimble204, track/PLP and sling(s) in control of a person who has not been properly trained in the use and care of this equipment.
- The Nimble204 and associated Track/PLP and sling(s) are for transferring patients only. Never use the Nimble204 for any other purpose.
- Highgate Healthcare's Warranty is void if unauthorized personnel perform service on the Nimble204 system.
- In facilities where more than one caregiver is responsible for using the Nimble204 and associated track and slings, it is important that all caregivers be trained in the proper use of this equipment. A training program should be established by the facility to familiarize new caregivers with this equipment.
- Do not expose the Nimble204 directly to water. Warranty does not cover any misuse or abuse of the Nimble204.
- The Nimble204 should be inspected and maintained on a regular basis to keep it operating safely and correctly.
- Any accessories used with the Nimble204 including the track/PLP and sling(s) should be checked to
  ensure that they are in good working order. Check for signs of tear or fraying prior to use. Report any
  unusual wear or damage immediately.
- Amico Mobility will not be responsible for any damage caused by misuse, neglect or purposeful destruction of the lift and its associated components. Do not attempt to modify/alter the Nimble204.
- Do not in any circumstance exceed the maximum allowable load of this lift. Refer to the "Technical Specifications" section of this manual and/or the labels on the lift.
- The installation of the lift, track and sling are certified to a maximum load. Do not exceed the maximum rated load of any of the components.
- There is a risk of explosion if the lift is used in the presence of flammable anesthetics.
- The Nimble 204 should be decommissioned/disposed of after the recommended service lift in accordance with local law regulations.
- If the battery case cracks and the contents of the battery contact your skin or clothing rinse immediately with warm water.
- If the contents of the battery contact your eyes, rinse immediately with plenty of water and seek medical attention.
- If the contents of the battery can cause respiratory irritation, provide fresh air and seek medical attention.



There are no known contraindications associated with the use of the Nimble 204 and it's accessories, provided they are used per our recommendations and guidelines

However, for any independent users of the Nimble 204, it is extremely important that the patient is able to receive assistance during the transfer in the event of an equipment failure. This assistance can be provided in the form of; a nearby qualified caregiver, a phone, or other communication device.



# Technical Specifications for Nimble204

#### **Maximum Lifting Speed:**

No load: 1.7 inches/second 150 lbs/68 kg: 1.3 inches/second 450 lbs/204 kg: 1.0 inch/second

#### **Unit Weight:**

6 lbs

#### Safe Working Load (SWL):

450 lbs

#### Dimensions (see diagram):

Length: 19.4" (49.27 cm) Height: 5.2" (13.20 cm) Depth of Lift: 3.7" (9.398 cm) Strap Length: 74" (187.96 cm)

#### Number of Lifts per Charge (Duty: 10/90):

78 with 150 lbs (25% of strap at midrange) 46 with 450 lbs (25% of strap at midrange) Charging time: 2-4 Hours

#### **Lift Case:**

Flame retardant ABS

IP23 Lift - protected from fingers and water spray less 60 degrees from vertical

#### **Batteries:**

High Capacity, Long Lasting NiMH 1 x 24V (1.6Ah)

#### **Hand Control:**

IPX4 Hand Control - protects from splashing water, no matter the direction

#### Safety:

**Emergency Stop** 

Emergency Lowering Device: Independent Circuit

Manual Lowering

Upper Limit Detection

Lower Limit Detection

Slack Tape Sensor

Free Fall Brake (Over Speed Governor)

Low Battery and Dead Battery Alarms

Soft Start and Stop

Overload Protection

#### **Approvals:**

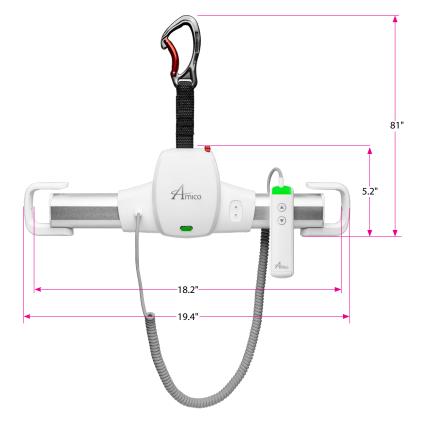
CAN/CSA-C22.2 No 60601-1:08 CAN/CSA-Z10535.1:15

#### **Expected Service Life:**

22,500 cycles or 10 years.

It is recommended that the lift be replaced after this

The expected life of slings, batteries fuses, straps and cord is dependent upon proper maintenance.



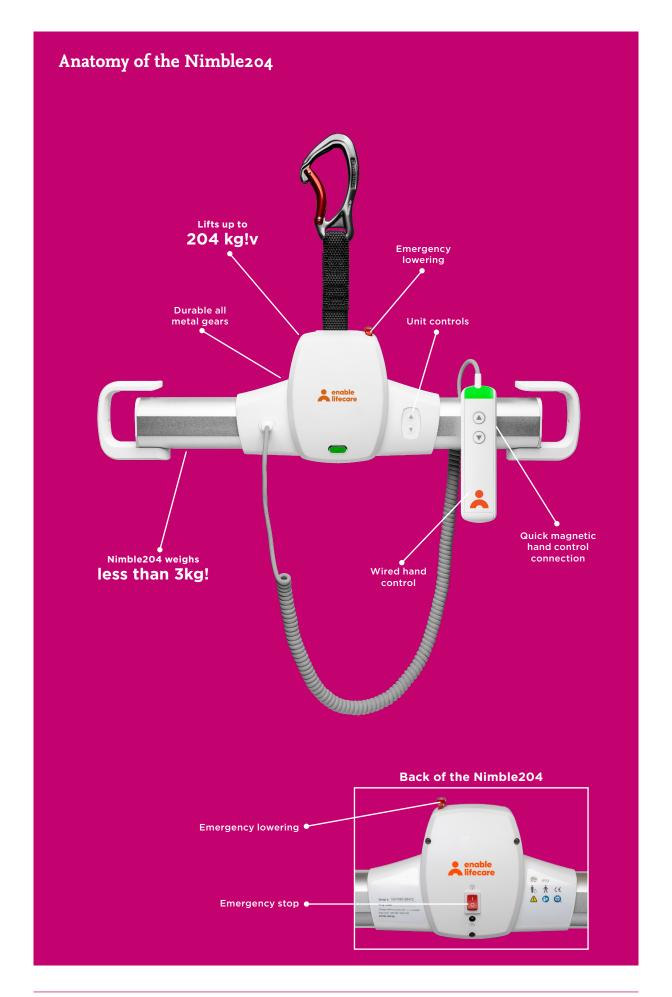












# Technical Specifications for Nimble204

#### LIFTING SLING

A lifting sling with four to six straps designed for mounting on hooks should be used with the Nimble 204 lift.

Highgate Healthcare 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 caregiver or patient.



## **WORKING WITH THE NIMBLE204**

The Nimble204 moves freely in the track system and does not have any special requirements for space or power in connection with moving. Attention can be fully focused on the user's functional level and the caregivers technique.

To use the Nimble204 correctly, the patient should only be lifted to the extent that she/he is clear of the surface and should be moved at this height.

#### ATTACHING THE LIFTING SLING

Place the straps from the lifting sling on the hooks of the Nimble204 Start with the uppermost set of straps (from the back) and then take the lowest set of straps (from the legs).



Be careful when attaching the lifting sling on the hooks. Check that the straps have been completely through the opening and into place in the Portable lift hooks.

When pressing the up button to lift the patient, check again that all straps remain correctly placed.

# LIFTING TO AND FROM A SEATED POSITION

- When lifting a patient from e.g. a wheelchair, move the Nimble204 towards the patient to be lifted.
- The lifting hooks should be at the same height as the patient's chest.
- Place the lifting hooks parallel to the patient's shoulders.
- Place the lifting sling behind the patient's back between the back of the chair and the patient's back.
- The center band of the lifting sling should follow the patient's spine. Lead the leg straps along the outer sides of the patient's shins and beneath the thighs between the hollow of the knees and the hip joints. Cross the leg straps in front of the patient.
- All four lifting straps are now ready to be attached.
   The lifting sling can now be mounted onto the Nimble 204 hooks.





# **Basics in Transferring a Patient**

#### LIFTING TO AND FROM LYING POSITION IN BED

- Bring the Nimble204 over the center of the patient to be lifted.
- Place the hooks parallel to the patient's shoulders.
- Turn the patient onto their side. The sling should be placed so that the top of the sling is at the same height as the top of the patient's head. Now position the sling over the patient so that the center band follows the patient's spine. Turn the patient onto their back and pull out the remaining part of the lifting sling. Place the leg straps beneath the patient'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 hooks. It would be advantageous to elevate the head of the bed so that the patient is sitting up.
- Only persons who have received competent instruction regarding the use of the lifting equipment and fitting of slings should use the Nimble204.



**IMPORTANT:** Plan the move and avoid leaving the patient in the sling unattended. Before lifting, check that the patient is completely free of their surroundings. The patient's head, arms, hands and feet must not be in danger or becoming trapped. Be careful with any tubes and wires that are attached to the user. Check that the Nimble204 hand control and hand control cable is not tangled to the patient and other objects before the lift is activated.

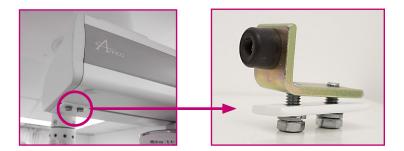
Never leave the lift unattended in an area such as a Psychiatric Ward with the patient.

## Installing the Nimble204 in the Gantry

a. Remove both endcaps on the PLP Arm.



b. By using an adjustable wrench, remove the endstop on the PLP track by loosening the bolts.





c. Make sure the portable trolley is inserted correctly in the PLP track.



- d. Fasten the endstops back on to the PLP track. Ensure there is enough clearance room to place the endcap on the PLP arm and place the endcap back on the arm.
- e. Fasten all endstops tightly using an adjustable wrench.



**NOTE:** If you are installing the Nimble204 in an existing track system you must ensure that the max load of the track system is equal or higher than the max load of the Nimble204.

f. To disconnect the lift from the trolley, open up the hook in the carabiner to release.



# **Installing the Endstop on the Gantry**





Use a 3/16 Allen key to secure the endstop to the track.



**Gantry Track Endstop** 

## Using the Reacher Bar

- a. With the lift resting on a bed, cart, table or other stationary object, use the down button on the lift or hand control to release enough of the strap to the point that will allow you to connect the carabiner to the trolley without having to pick up the lift from its position.
- b. Open the carabiner latch by pressing the colored latch towards the back of the carabiner. This "opens" the carabiner so that it can be attached to the latch of the Reacher Arm. Once the carabiner is hooked onto the Reacher latch, release the latch of the carabiner so that it will be closed, and therefore locked in place.
- c. Raise the Reacher Bar up to the trolley. Make sure there is enough slack on the lift strap to accomplish this step otherwise it will not be possible to hook on.
- d. Slide the top hook of the Reacher Bar through the trolley. Make sure there is enough slack on the lift strap to accomplish this step otherwise it will not be possible to hook on.
- The lift has now been securely hooked onto the trolley. The Reacher Bar remains in position until the lift is removed.



Open carabiner to attach in slot of the Reacher Bar.



Closed carabiner attached to latch of the Reacher Bar.



Raise the Reacher Bar to the trolley.



Slide the top hook through the trolley.



Lift is securely hooked onto the trolley. The Reacher Bar remains in position.

# Magnetic Connection of the Hand Control to the Nimble204

Magnetic hand control for quick attachment to the Nimble 204.



Do not place the hand control within 6" of a pacemaker. Patients with pacemakers must follow the instructions provided by their physician and pacemaker manufacturer.







# Operating the Nimble204

The Nimble204 is switched on automatically when a button on the hand control is pressed. The Nimble204 switches off automatically after three minutes without activation.



# Charging the Nimble204

The charger plugs in into the port on the Nimble 204.

The batteries should be charged on a regular basis. It is recommended that the lift be left on charge when not in operation, and at the end of each day. This will maximize the life cycle of the batteries.

The Nimble204 may remain connected to the charger indefinitely since the charger has a built-in regulator, eliminating the danger of overcharging.

As a general rule, it is recommended that the lift be raised to a height that will not interfere with anything or anyone while the lift is not in use.



Do not drain the batteries excessively. This will dramatically reduce the lifespan of the batteries. If the battery level is critically low (see LED and Buzzer Functions section), be sure to recharge the battery as soon as possible.



Charge the batteries to full and turn the lift off before storing. Recharge the lift every three months while the lift is in storage.



## **LED and Buzzer Functions**

#### LED INDICATORS







WAKING UP A LIFT AFTER CHARGING

When waking the lift from the sleep state, there will be a sequence of three LED statuses before the lift goes back to sleep. The LED color indications will differ slightly between waking the lift while charging and while not charging. See the table below for details.

LED Status' While Lift is Charging				
	Duration			
Wake	GREEN	4 secs		
Charging indicator	AMBER	4 secs		
In use /ielle	GREEN (at full charge)	3 mins		
In use/idle	AMBER (low battery level)	S MINS		
Sleep (if inactive)	Off n/a			

LED Status' While Lift is on Battery Power				
	LED Color	Duration	Beeping	
Wake	GREEN	10 secs	None	
	Continuous solid <b>GREEN</b> (at full charge)		None	
In use/idle	Blinking <b>AMBER</b> 1x/s (low battery level)	1 mins	None	
	Continuous solid <b>RED</b> (critical battery level)		1x/3s	
Sleep (if inactive)	Off	n/a	n/a	

#### STATUS 1:

Will always show green when the lift wakes up for four seconds.

#### STATUS 2:

Will be amber for four seconds to confirm that it is currently charging.

a. If the light remains green, this means the lift is on battery power and not being charged.

## STATUS 3:

Shows the current battery level.

- a. For a lift on charge, the light will change from amber to green after four seconds to indicate lift is at full charge. Otherwise, the amber light will remain for three minutes after inactivity before the lift goes back to sleep.
- b. For a lift on battery power, the light will remain green for one minute if the battery level is acceptable. If battery level is low, the LED will change from green to amber after nine seconds and blink amber once per second. If battery level is critical, the LED will change from green to solid red after nine seconds, beeping once every three seconds. These states will remain until the lift goes back to a sleep state after one minute of inactivity.

# **LED and Buzzer Functions**

#### **OTHER ERROR CODES**

Error Codes		
Battery not plugged in/No temperature sensor detected	Blinking red (3x/s, 1s off), beeping 1x/5s	
Over capacity	Blinking red (2x/s), continuous beep	
Charging error: Battery over temperature/Sensor Error	Blinking red (2x/s), beeping 1x/5s	
Brake end of life	Blinking red (4x/s,1s off), beeping 1x/5s	
Maintenance alarm	Blinking green (2x/s)	

#### MAINTENANCE ALARM:

After 1,001 lifts, the LED will flash green. To reset, press buttons in the following sequence: Up, Down, Up, Down, then hold both buttons for 10 seconds. If successful, the LED turns red, green and amber. The buzzer will beep three times. Note: Reset can be performed at any time, not just after the 1000th lift.

## **Emergency Stop**

The Nimble204 has an Emergency Stop feature that allows the operator to completely shut off the power to the lift in the event of an emergency. This can be completed by pressing down on the "O" indicator on the red switch located on the back of the unit. To re-activate the lift, simply press down on the "I" indicator on the same red switch.



# **Emergency Lowering**

In the event that the DOWN button on the hand control does not function, or in power failure situations, the patient may be lowered by pressing and holding down the RED emergency lowering button located on the top of the lift. Continue to press down until the patient is safely lowered to the desired position. The lift will beep as you continue to press down on the red button and will continue beeping until the button is released after the desired lowering has been achieved.

**NOTE:** The emergency lowering button does not provide a raising function. The failure of any of the lowering devices should be reported to Enable Lifecare.



In an event of emergency hen normal lowering system of the lift malfunctions and the "emergency lowering" function is used, the lift must be examined by a qualified lift technician before re-use.



Do not press the red button forcefully. For assistance after an emergency contact Amico Service: amo-service@amico.com or 1.877.462.6426

#### **Emergency Lowering Button**







Continue to press down until the patient is safely lowered to the desired position.

## **Manual Emergency Lowering**

The manual emergency lowering and raising feature should only be used if all other controls fail. A proper safety ladder or stool may be required. Use a 3/16" or 2.5 mm Allen key to rotate the motor in the up or down direction.



Do not attempt to use the lift while using manual lowering.

## Overspeed Cam

The Overspeed Cam brake is made of a metal bar fixed to the drum. In case of gear or motor breakage, the centrifugal force created will block the bar against the frame.



# **Cleaning and Disinfection**

The exterior of the Nimble204 should only be cleaned, disinfected using the recommended cleaning agents shown below. Damp a cloth with the cleaning agent and wipe down the entire exterior of the lift. Other chemicals and/or liquids not listed should not be used to clean and disinfect this lift.



Take great care to ensure that no liquids get inside the Nimble204. The lift is not drip proof or water tight. Failure to protect the lift from liquids may result in damage to the lift and may cause personal injury.

Recommended cleaning agents:

- CaviWipes
- Clorox Healthcare Professional Disinfecting Bleach Wipes
- Dispatch Hospital Cleaner Disinfectant Towels With Bleach
- Oxivir Tb Disinfectant Wipes
- Sani-Cloth Super Germicidal Disposable Wipes
- tB Minuteman NEX GEN
- Virocidin-X
- Virox-5
- Virox Accel Tb

Clean the inside of the tracks every 4 months using a damp cloth to ensure a smooth rolling surface for the trolley.

## **Troubleshooting**

Should problems arise with the use of the Nimble204, review the following chart. Find the fault and complete the recommended solution. If the fault is not found and or/the solution does not correct the problem contact Enable Lifecare.

Fault	Recommended Solution
The Nimble204 beeps once every 3 seconds while in use. The lift only goes down but not in the upwards direction.	The batteries are low and the lift should be charged.
The Nimble204 cannot lift.	If the load is in excess of the safe working load the Nimble204 will not work due to over-current protection.
The batteries are always dead after a few charges.	Replace the batteries as they may be at the end of their service life.
The Nimble204 does not operate when you press the buttons on the hand control.	Check that the emergency button is in the on position.
The lift does not go up.	There may be a twist in the lift strap.



16

# **Inspection and Maintenance**

Prior to using the Nimble204, the inspections should be conducted per the following schedule:

Item	Before Use	Every Month	Annual
The Nimble204 beeps once every 3 seconds.	•		
Ensure that endstops are installed	•		
Inspect strap for wear or fraying	•		
Ensure Batteries are charged	•		
Inspect hooks for damage or sharp edges			•
Inspect the wheels in the portable trolley. Replace if damaged.			•
Sling			
Check all straps for wear or fraying	•		
Inspect the sling for any damage in the fabric		•	
Ensure there are no loose threads in the stitching	•		
Maintenance by a certified technician			
Check the strap and replace only if frayed or damaged			•
Inspect the gearbox for any unusual noises			•
Inspect the hook components for any signs of damage			•
Inspect the gears for any broken or worn teeth			•
** Verify the overspeed cam is operating freely			•
Check emergency stop button			•
** Check emergency lowering device			•
*Annual load test with SWL (maximum safe working load)			•
Ensure the endstops are installed			•
*Reapply grease to the gears			•

<sup>\*</sup> In accordance to the ISO 10535 Standard "Hoists for the transfer of disabled persons – Requirements and test methods" an inspection should be performed on the Nimble204 at least once a year. This inspection should be performed by a qualified technician and should include a working load test of one (1) lifting cycle with the maximum load.

<sup>\*\*</sup> These two functions must be checked by a qualified technician to ensure the essential performance of the Nimble 204.



Do not operate the Nimble 204 until any issues discovered during the inspection have been addressed by a certain technician.

<sup>\*</sup>Re-apply grease to the gears using the Amico certified grease. Can be bought from Amico.

# **LOOP SLINGS**

#### Oxford® Style Sling Color/Size Chart - Standard Size

Recommended weight range should only be used as a guideline as other factors can affect sizing.

LIFT T	YPES	SP	READER BAR	SLING SWL
Advance Elara Presence	Midi 180 Stature	Loop		227 kg



# Nimble204 Accessories



\*All slings on this page may be used for amputees

# Nimble Gantry System

## **Nimble Free Standing Gantry**

The Nimble Gantry is a portable freestanding lift stand which, in combination with a rail and a ceiling lift motor, functions as a stationary lift system. Gantry is an ideal solution for occasional lifting needs in a specific location, or where it is not possible to install a permanent rail system on the ceiling.



#### **Features:**

- Sturdy and stable construction
- · Made of aluminium
- Easy to assemble and disassemble
- Easy to move and store
- · For use with both fixed and portable ceiling lift motors
- Weight capacity 204 kg
- Set up in 5 minutes
- Width: 2.34 m
- Height 2.11 m

## **Environmental Conditions**

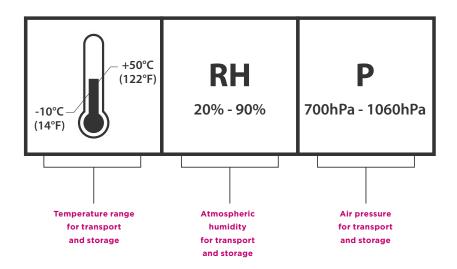
	Operation	
	MINIMUM	MAXIMUM
Temperature	+10°C	+40°C
Relative atmospheric humidity	30%	75%
Air pressure	700 hPa	1060 hPa

Transport/Storage			
	MINIMUM	MAXIMUM	
Temperature	-10°C	+50°C	
Relative atmospheric humidity	20%	90%	
Air pressure	700 hPa	1060 hPa	

**NOTE:** It is recommended that the lift be brought back to an area kept at room temperature between uses. For example after transport in a vehicle do not leave the lift in the trunk or backseat.

Also, try to keep the lift from staying in rooms with a metallic roof where temperatures may increase the allowable operating temperature.

#### REFERENCES ON THE PACKAGE



# Electro-Magnetic Compliance Data for Nimble204

#### **Description**

The [EQUIPMENT or SYSTEM] is intended for use in the electromagnetic environment specified below.

The customer or the user of the [EQUIPMENT or SYSTEM] should assure that it is used in such an environment.

Emission Test	Compliance	Electromagnetic environment – guidance
RF Emissions CISPR 11	Group 1	The [EQUIPMENT or SYSTEM] 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 A	The [EQUIPMENT or SYSTEM] is suitable for use in all establishments other than domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Complies	

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Use of accessories and cables other than those specified by Enable Lifecare, could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment, and result in improper operation.

Portable RF communications equipment should be no closer than 30 cm to any part of the Nimble204. Otherwise, degradation of the performance of this equipment could result.



# Electro-Magnetic Compliance Data for Nimble204

#### Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The [EQUIPMENT or SYSTEM] is intended for use in the electromagnetic environment specified below. The customer or the user of the [EQUIPMENT or SYSTEM] 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	±6 kV contact	Floors should be wood, concrete or ceramic tile.  If floors are covered with	
TLC 01000-4-2	±8 kV air	±8 kV air	synthetic material, the relative humidity should be at least 30 %	
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines	±1 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.	
	±1 kV for input/ output lines	±0.250 kV for input/ output lines		
Surge IEC 61000-4-5	±1 kV line(s) to line(s)	±1 kV line(s) to line(s)	Mains power quality should be that of a typical commercial or hospital environment.	
	±2 kV line(s) to earth	±2 kV line(s) to earth		
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle  40 % UT (60 % dip in UT) for 5 cycles  70 % UT (30 % dip in UT) for 25 cycles  <5 % UT (>95 % dip in UT) for 5 sec	<5 % UT (>95 % dip in UT) for 0,5 cycle  40 % UT (60 % dip in UT) for 5 cycles  70 % UT (30 % dip in UT) for 25 cycles  <5 % UT (>95 % dip in UT) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the [EQUIPMENT or SYSTEM] requires continued operation during power mains interruptions, it is recommended that the [EQUIPMENT or SYSTEM] be powered from an interruptible power supply or a battery.	
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A / m	Not Applicable	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.	

**NOTE:**  $U_{\tau}$  is the a.c. mains voltage prior to application of the test level.



22

# Electro-Magnetic Compliance Data for Nimble204

#### Guidance and Manufacturer's Declaration - Electromagnetic Emissions

The [EQUIPMENT or SYSTEM] is intended for use in the electromagnetic environment specified below. The customer or the user of the [EQUIPMENT or SYSTEM] should assure that it is used in such an environment.

Emissions test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
			Portable 450 and mobile RF communications equipment should be used no closer to any part of the [ME EQUIPMENT or ME SYSTEM], including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
			Recommended separation distance
			d = 1.2 √P
√Conducted RF	3 Vrms		d = 1.2 √P 80 MHz to 800 MHz
IEC 61000-4-6	150 kHz to 80 MHz	3 Vrms	d = 2.3 √P 800 MHz to 2,5 GHz
Radiated RF	3 V/m	3 V/m	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).
IEC 61000-4-3	80 MHz to 2,5 GHz		Field strengths from fixed RF ransmitters, as determined by an electromagnetic site survey <sup>a</sup> , should be less than the compliance level in each frequency range <sup>b</sup> .
			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.



23

<sup>&</sup>lt;sup>a.</sup> 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 [ME EQUIPMENT or ME SYSTEM] is used exceeds the applicable RF compliance level above, the [ME EQUIPMENT or ME SYSTEM] should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the [ME EQUIPMENT or ME SYSTEM].

<sup>&</sup>lt;sup>b.</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

# Electro-Magnetic Compliance Data for Nimble204

### Recommended separation distances between portable and mobile RF communications equipment and the [EQUIPMENT or SYSTEM]

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

Rated maximum	Separation distance according to frequency of transmitter					
output power of transmitter W	M					
	150 kHz to 80 MHz d = 1.2√P	150 kHz to 80 MHz d = 1.2√P	800 MHz to 2,5 GHz d = 1.2√P			
0,01	0.12	0.12	0.23			
0,1	0.38w	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.

### Disposal

- The Nimble 204 doesn't contain any dangerous goods.
- The components of the Nimble204 should be properly disposed at the end of its shelf-life.
- Make sure that the materials are carefully separated.
- The electrical conducting boards should be submitted to an appropriate recycling proceeding.
- The rest of the components should be disposed according to the contained materials.



## **Warranty Policy - Mobility Solutions**

The primary purpose of our ceiling lift system is to safely lift, transfer and reposition a patient with as little effort as possible for the caregiver, regardless of the room type. The Amico Mobility Solutions Corporation's GoLift is easy and safe to use for caregivers as well as patients. The lift systems fit into all environments and fulfills the highest requirements of function, safety and reliability.

Highgate Healthcare warrants its lifting equipment and workmanship to be free from defects for a period of three (3) years from the date of installation. This includes tracks, lift motor, carry bar and accessories. The Highate slings have a warranty of two (2) years. Within this period, Highgate Healthcare will replace any part (at no additional charge), which is deemed defective.

Shipping and installation costs after the first twelve (12) months will be borne by the customer. The following exclusions apply: the warranty for batteries is for a period of three (3) months from the time of installation; the warranty for power supply is one (1) year from the time of installation.

This warranty is valid only when the product has been properly installed as outlined in the Highgate Healthcare specifications; including but not limited to proper usage and servicing of systems according to factory recommendations. It does not cover damages as a result of shipment failures, accidents, misuse, abuse, neglect, mishandling, alternation, misapplication or damages which may be attributed to acts of God.

Highgate Healthcare shall not be liable for incidental or consequential damages resulting from the use of the equipment.

All claims for warranty must first be approved by Highgate Healthcare's Service Department at highgatehealthcare.com.au or 1300 350 350. A valid Return Goods Authorization (RGA) number must be obtained from Amico Mobility Solutions Corporation prior to commencement of any service work. Warranty work which has not been pre-authorized by Highgate Healthcare will not be reimbursed



Through our innovative, quality products, exceptional service and ingrained knowledge and expertise of the healthcare industry, Highgate Healthcare has been raising the standard of living in aged care, hospital, disability and rehabilitation facilities in Australia for over 30 years.



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