





oasis

01190-0-00_rev.20211029



Give this manual to the wheelchair occupant or the assistant if the occupant is unable to read it.



Please read the entire manual before using the wheelchair. Please refer to this manual as needed and pay close attention to the warnings until you are familiar with them. For electrically powered wheelchairs, pay close attention to the operating rules for the control system and battery charger.

If you have any questions, please consult a technician at an authorized service centre, or contact our customer service department at 1-800-463-5293

Centre:	
Address:	
Phone:	



The settings for your wheelchair must be adjusted by a health care professional. Inappropriate settings may cause injury and/or damage to the user, their caregiver, the wheelchair, or the environment.



NEVER install accessories that are not authorized and approved by **ORTHOFAB**. Always consult a health care professional for any modifications to your wheelchair.



Please read the entire manual describing the control system of your Oasis electrically powered wheelchair before first use, along with the battery charger manual. They are provided for your safety.



As Quebec's only manufacturer of manual and electrically powered and tilt wheelchairs, **ORTHOFAB** is proud to offer high-quality wheelchairs, adapted to your needs and to your seating comfort, and we thank you for selecting one of our products. **ORTHOFAB** products comply with Quebec standard BNQ 6645-001 (2019), which specifies technical and documentary requirements for manufacturers of mobility devices. Our team is always ready to answer your comments and questions, guided by our commitment to your satisfaction and to providing the best possible service.

WARRANTY

ORTHOFAB has a comprehensive warranty on mechanical and electronic parts and components (see section 7 of the manual).



This warranty does not apply in case of breakage due to negligence, abuse and/or unauthorized installation of components. **ORTHOFAB** is not liable for any damage to persons or property resulting from improper or negligent use of its products, lack of care, or modifications made without its written consent.



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1. SAFETY RULES

1.1 General Information

Applies to all **ORTHOFAB** wheelchairs



Driving settings should only be adjusted and/or modified by a health care professional or an authorized service technician. Improper driving setting adjustments could be hazardous to the occupant.

1.1.1 BEFORE YOU HIT THE ROAD

CHECK:

- Parking brakes engaged;
- Anti-tip device installed;
- Sufficient tire pressure;
- Stable seating position;
- Removable and/or retractable foot support and arm support locked;
- Elevating lower leg support assembly is lowered;
- Adjusted pelvic positioning belt;
- Tilt mechanism and reclining back support in driving position;
- Make sure that nothing interferes with the wheels (scarf, umbrella, coat hanging from the back support, etc.) and that no heavy objects are hanging from the back support;
- Make sure that the battery is sufficiently charged and that the cables of the control box and parking light switch are correctly positioned to prevent wheel lock or interference with the environment;
- If you own an *Oasis*, make sure that the rubber protector under the joystick tip is in good condition (if not, have it repaired immediately).



Never allow a child to play with or on the wheelchair, whether or not the occupant is sitting in it.

If you intend to leave the unit in one place for a long period of time, turn the power off to reduce the risk of accidental powerup.

1.1.2 GETTING AROUND IN A WHEELCHAIR

- Always use the pelvic positioning belt and adjust it properly;
- When faced with an obstacle, stop, and move forward gradually;
- Avoid slippery and uneven surfaces;
- Avoid sudden and abrupt turns;
- If unsure of surface conditions, bypass the area or avoid venturing out;
- If weather conditions are extreme or change abruptly, find shelter as soon as possible;
- Always make sure you are visible;
- Do not pull a trailer or carry passengers;
- To maintain good balance, ensure proper distribution of objects on the wheelchair and avoid carrying heavy objects;
- Do not approach slopes. If it is unavoidable, make sure you never climb or descend diagonally and always face forward. For manual and tilt wheelchairs, it is strongly recommended to approach slopes with an assistant, regardless of angle.

The following additional considerations apply to *Oasis* electrically powered wheelchairs:

- Avoid any impacts to the control box or joystick;
- Do not change direction abruptly at high speeds;
- Do not drive on expressways or high traffic lanes;
- Do not drive in extreme weather conditions (i.e., storms);
- When traveling outside at night, make sure you are visible to others;
- Operate the joystick gently when starting on a hill to avoid tipping backwards;
- Do not turn around on an incline;
- Reduce your speed in tight or crowded areas;
- Reduce your speed in crowds and use your horn to signal your presence;
- The Oasis can climb 50 mm obstacles; However, it is strongly recommended to avoid thresholds over 38 mm (1 ½ in.) as this could, depending on surface conditions, put your stability at risk;
- Use elevators to move between floors;
- Do not move around without your feet on the foot supports;
- Do not ride an escalator with your wheelchair;
- Keep your hands away from the wheels when your electrically powered wheelchair is in motion;



- The *Oasis* wheelchair can negotiate slopes at low speed, with a <u>maximum</u> incline of 10°, external or internal, and a length of at least 3 metres, alone or with an assistant. The assistant must always be at the back of the wheelchair, whether ascending or descending, and should hold the back support posts;
- Do not make sudden stops and starts;
- Do not let the wheelchair gain too much speed when going downhill;
- Stop if you feel you are losing control;
- Restart slowly without letting the wheelchair accelerate;
- Climb and descend slopes in a straight line directly along the slope's axis; This greatly reduces the risk of tipping or falling;
- The wheelchair will remain stable and under controlled trajectory if the above conditions are met. Ascending or descending an incline with an electrically powered wheelchair is possible, if the consulting health care professional is satisfied that the user understands the limitations of the wheelchair and is capable of driving under these conditions.



Comply with the above conditions to ensure the wheelchair's stability and ability to control the desired trajectory.

Ascending or descending an incline, either independently or with an assistant, is possible if the consulting or prescribing health care professional is satisfied that the occupant has the physical and cognitive skills to do so.

1.1.3 TRANSFERRING

- Fold down the foot supports;
- It is recommended that leg support assemblies be removed before transferring;
- Always apply the brakes before a transfer or before sitting in the wheelchair;
- Never lean forward or backward to reach an object;
- Position yourself sideways to the object to be reached, as close as possible;
- Use the techniques learned from your health care professional to make the transfer;
- Do not sit on the back support if it is reclined;
- Never stand on the foot supports;
- Never sit or lean directly on the arm supports;
- Always **switch off** the control box before transferring or transporting. Retract the control box if necessary.

1.1.4 MISCELLANEOUS HANDLING

Do not charge the batteries in your bedroom.	While charging,
batteries may release harmful gases.	





- Never submerge your wheelchair or leave it in the rain for a prolonged period;
- Do not store your wheelchair in a damp or very cold place (this could cause serious damage);
- If the occupant remains seated in a wheelchair while travelling in a road vehicle designed for transporting disabled persons, make sure that the occupant, driver and the vehicle owner respect all legislative, regulatory, policy, guideline and standard requirements, instructions and recommendations of all competent authorities;
- When approaching an inclined surface in freewheel mode, the assistant should always be toward the bottom of the incline relative to the wheelchair;
- Do not attempt to lift or move the wheelchair by moving parts such as arm supports, leg support assemblies, seat, control box, or cover. Use only non-removable, solid frame components.

The following items should be considered:

- Do not let children play near the wheelchair unattended when it is charging;
- Do not modify the 110 V AC connection of the battery charger;
- Do not modify the 24V DC connection to the wheelchair;
- Never use extension cords to charge your electrically powered wheelchair;
- Since your wheelchair is equipped with a built-in charger, never plug a second charger into the control box or modified control interface;
- Never connect electrical accessories to your wheelchair other than those authorized by ORTHOFAB;
- Never modify the electrical circuit of the wheelchair;
- Immediately replace any damaged power cables;
- Use only sealed AGM or gel batteries;
- Never touch both battery terminals with a metal tool simultaneously. Contact between the two terminals can cause burns, explosion, or electric shock;
- Only use batteries with similar characteristics. Never pair an old battery with a new one;
- Wear protective eyewear and gloves when handling batteries, as the terminals contain lead. Wash your hands after handling batteries, as they contain corrosive materials;
- Never recharge batteries in your bedroom;
- Only use charger models recommended by ORTHOFAB.

1.1.5 COMPONENT CLEANING AND MAINTENANCE

To disinfect the wheelchair, first remove all accessories that require special treatment and those that cannot be treated:



<u>Special treatment</u>: All upholstery from which foam cannot be removed (back support, lower leg support). Disinfection by hand. Using a cleaner, first wipe with a cloth, then apply a disinfectant, wait the required time, and wipe off.

Not treatable: Electronic components (batteries, control box, etc.).

- Using a soft cloth, clean the control box and joystick as soon as possible if they become dirty.
- Fabric washing: remove foam and machine wash the cover in warm water with mild soap. Hang to dry. Do not use alcohol-based detergents or thinners.
- For other components, pre-moistened alcohol and/or quaternary ammonium wipes are recommended.

1.2 About electromagnetic energy

All electronic devices that transmit information at a distance usually emit radio waves into the environment. These radio waves are called "electromagnetic energy". This electromagnetic energy may affect the proper functioning of an electronic device. This is called "electromagnetic interference". Although the electrically powered wheelchair complies with BNQ 6645-001 (2019) standard for electromagnetic testing, any electrically powered wheelchair is susceptible to electromagnetic interference. As the intensity of the energy increases, so does the risk of malfunction.



To avoid electromagnetic interference, please read and follow the warnings below before using your **ORTHOFAB** chair for the first time.

1.2.1 WARNINGS

Waves emitted by:

- Radio and television stations;
- Ham radio equipment;
- Radio transmitters/receivers;
- Cell phones;
- All Bluetooth and Wi-Fi enabled electronic devices;

1.2.2 Use of transmitters and receivers

- Avoid proximity to these electromagnetic emission sources.
- Turn the control box off before using a cell phone or a CB radio.
- Adding electrical accessories and/or making certain electrical modifications to the wheelchair will alter its immunity to electromagnetic emissions.





- Turn the control box **off** as soon as it is safe to do so if the wheelchair is functioning erratically.
- Report any such incident to **ORTHOFAB**'s customer service department.



Avoid using electronic devices when the electrically powered wheelchair is turned on. The use of any mobile device while driving is not recommended and may be prohibited by applicable laws and regulations.



2 RECOMMENDED USE

2.1 Operating environment

All **Oasis** wheelchairs are ideal for moving around indoors. Their short turning radius makes it easier to maneuver, even in tight spaces. With a 10 km/h motorized drive, they are the best option for outdoor use.

Our **Oasis** line can be supplied with mounting points for using the wheelchair as a car seat, since it has undergone frontal impact testing in accordance with BNQ 6645-001/2019 standard. With its small overall dimensions and short turning radius, it is the easiest wheelchair in its category for access to vehicles and maneuverability in a forward-facing position.

Our **Oasis** line is suitable for versatile use in any environment. Whether you want a wheelchair with front suspension (PC), without front suspension (PP) or with a centre plate (PCM), they all feature short turning radius, small overall dimensions, a 10 km/hr motorized drive and greater outdoor maneuverability during our harsh winters. Your **Oasis** PC, PP or PCM will get you where you want to go!

Learning to properly drive a wheelchair requires practice. It should only be used by the person to whom it was prescribed.



Wheelchair use should be based on the occupant's cognitive and physical abilities. Only a qualified healthcare professional should provide an opinion in this regard.

2.2 Operating the wheelchair

Wheelchair users have different abilities and limitations, and will often have to deal with these limitations in their daily activities. **ORTHOFAB** understands these differences, and the training required to operate the wheelchair according to their reality. This section provides a basic guide for safe wheelchair operation, either by the user or their assistant.

2.2.1 STABILITY AND BALANCE

While the wheelchair is designed for stability, the occupant's balance is an important factor in maintaining it. Virtually any movement by the occupant will affect the centre of gravity, so the pelvic positioning belt should be used unless directed otherwise by health care professionals. **2.2.2 NEGOTIATING EVERYDAY OBSTACLES**

By learning to maneuver your wheelchair properly, you can successfully negotiate everyday obstacles, such as curbs, thresholds, etc. with ease. Be aware of your centre of gravity in order to maintain stability and balance.

Negotiate obstacles head-on, very slowly if in an electrically powered wheelchair, with special attention to your centre of gravity to maintain stability. Start with small obstacles (door threshold, speed bumps with a steep incline). When you are more comfortable and proficient with basic maneuvers, you can use the tipping technique to clear more pronounced obstacles.

The **Oasis** has a rear anti-tilt device (2 castors) that prevents accidental maneuvers. It is important for your safety to make sure they are always in place.



2.2.3 NOTE TO ASSISTANTS

Always use proper body mechanics when the occupant requires assistance. Keep the back straight and bend the knees when tipping the wheelchair to climb a sidewalk curb or other obstacles.

Also consider detachable components, such as arm supports and leg support assemblies. These components should **never** be used to lift or hold the wheelchair, as they can be inadvertently disengaged and injure the occupant or assistant.

When learning a new assistive technique, always practice it with an experienced assistant before you attempt it alone.

2.2.4 TIPPING



This technique is usually done by the assistant. Hold the handles firmly, warn the occupant of your tipping maneuver and remind them to lean back. Ensure that the occupant's feet and hands are clear of the wheels. Apply continuous motion until you reach the balance point. Turn the chair in the desired direction if necessary. Lower the front end of the wheelchair in one continuous motion. DO NOT drop the wheelchair.

2.2.5 CURBS

Use the tipping technique to overcome more significant obstacles. The assistant should tilt the wheelchair until its front wheels pass the obstacle. Disengage the brakes (see Figure 1 and Section 7.7), roll the wheelchair forward and lower the front wheels onto the raised surface. Push the wheelchair forward until the rear wheels clear the obstacle. Re-engage the parking brakes when the maneuver is complete.



Figure1: Brake release handle.

2.2.6 STAIRS



EXTREME CAUTION should be exercised if the wheelchair is moved on stairs. ORTHOFAB strongly recommends that the chair be unoccupied when using a staircase, and that two (2) people perform the maneuver. If the occupant must remain in the wheelchair, three (3) people should perform the maneuver. DO NOT use any detachable components for leverage or use arm or foot supports to lift the wheelchair.

When using an Oasis electrically powered wheelchair, avoid climbing stairs. If this is unavoidable, the occupant must be transported independently of the wheelchair, and batteries must be removed before the maneuver.



An electrically powered wheelchair weighs more than 180 lbs. without the occupant and without the batteries. To prevent any injury, use proper technique: lift with the legs and not with the back.

- 1. Transport the occupant to another seat.
- 2. Remove the wheelchair battery boxes (see BATTERIES section).
- 3. With a partner (or two), firmly grip a non-detachable part of the frame and lift the wheelchair completely off the ground.
- 4. Carefully climb up or down the stairs.



Never attempt to go up or down an escalator with an electrically powered wheelchair, even if it is unoccupied.



2.2.7 TRANSFERRING TO OR FROM ANOTHER SEAT



Turn the control box OFF before transferring (for electrically powered wheelchair).

Before transferring, it is important to reduce the space between the two (2) transfer points. The front wheels must be turned toward the transfer point. Engage the parking brakes to prevent the wheels from moving.

When transferring, position yourself at the very back of your seat. This keeps the wheelchair from tipping forward.

NOTE: You can do this alone if you have sufficient mobility and arm strength.

2.2.8 FUNCTIONAL STRETCHING FROM THE WHEELCHAIR



Do not attempt to reach objects if you have to move to the front of your seat or if you have bend over to pick them up off the ground.

Several activities will require the occupant to lean, stretch or transfer in or out of their wheelchair. These movements affect the wheelchair's balance point, centre of gravity and weight distribution. To determine your specific limits, first practice stretching, leaning and transfer movements with a health care professional.

Properly positioning the castor wheels is essential for safety. When extending, tilting, or bending, use the castor wheels for stability and balance.

DO NOT lean forward in the wheelchair more than an arm's length. Make sure the wheels are directed forward when you need to tilt in that direction. To do so, move your chair back and forth in a straight line.

2.2.8.1 STRETCHING, LEANING, AND BENDING FORWARD

Position the castor wheels toward the front of wheelchair and engage the parking brakes. Do not lean on the front of the arm supports to avoid tipping over the wheelchair or its occupant.

2.2.8.2 STRETCHING AND BENDING BACKWARD



Do not lean on the top of the back support. This movement shifts the centre of gravity and may cause the wheelchair to tip over.

Position the wheelchair as close as possible to the object to be reached. Position the castor wheels forward to create the longest wheelbase possible. Reach your arm back only as far as your arm will extend without having to change your seating position.



TECHNICAL SPECIFICATIONS

2.3 The Oasis electrically powered wheelchair



Figure 1: Oasis power base (rear view).



Figure 2: Oasis power base and seat (front isometric view).

Figure 3: Oasis power base and seat (rear isometric view).



TECHNICAL INFORMATION

Manufacturer: **ORTHOFAB**

oasis

Electrically powered wheelchairs – Adult

Oasis PC (FMO-GM2-B-P2 - Compact multi-purpose unit)

PC-03	PP	РСМ
FMO-GM3-B-P2	FMO-GM2-A-P2	FMO-GM2-B-P2
Compact multi-purpose unit	High performance multi-purpose unit 25-1/2" total width power base	Compact multi-purpose unit with one-piece central motorized leg support
300 lbs (136 kg)	265 lbs (120 kg)	265 lbs (120 kg)

Weight
Weight without batteries in basic configuration: 83 kg
Power base
Total width closed: 24 in.
Front suspension axle (PC/PCM)
Wide axle (PP)
Removable battery boxes
Integrated battery charger
Battery level indicator on control box
Automatic electromagnetic disc brakes
Manual brake release handle
Fixed seat angle adjustment mechanism
Power tilt mechanism, up to 45°, with separate control
Independent rear suspension
Rear bumper
Rear reflectors and adhesive strips
Optional traffic lights and side emergency flashers
Anti-tip device
Seat
Adjustable width: 14 to 24 in.
Adjustable depth: 15 to 21 in.
Floor-to-seat height (fixed): 15 ½ to 20 ½ in.
Floor-to-seat height (power tilt): 15 1/2 to 19 1/2 in.
Rigid or elastic mesh seat
Back support
Adjustable angle 90°, 95°, 100°, 105°, 110°
Back support post height from 16 to 24 in.
Power tilt from 90° to 130°, with biomechanical adjustment
Flexible nylon upholstery with adjustable tension
Upholstered, contoured back support cushion with optional contoured hard back support
I ension bar with head support anchor
Head support
Profiled upholstery
Height and angle adjustable head support
Arm support
Retractable and removable "U" type, height adjustable from 8 to 12 in. or from 10 to 14 in.
Removable "I" type, height adjustable from 8 to 12 in, or from 10 to 14 in.

Removable "L" type and swing-away, height adjustable from 8 to 12 in. or from 10 to 14 in.
2-inch wide, 10-inch (short) or 14-inch (long) straight comfort padding
Tubular, profile, and gel comfort pads also available
Leg support assembly
Swing-away and removable
Angled release with spring-loaded swivel mechanism
Knurled screw to lock leg support assembly release
60° or 70° parallel support with adjustable length from 14 in. to 23 in.
Manual compensating elevating leg support assembly
Motorized elevating lower leg support assembly controlled by unit or by pair
One-piece motorized elevating leg support assembly
Upholstered lower leg support
Foot support
Standard or oversized
Adjustable angle and depth, standard or oversized
Adjustable heel brace
Roller front bumper
Castor wheels
8 or 9 in. inner tube
With anti-puncture
Drive wheels
14" inner tube
With anti-puncture
Control boxes
Control boxes R-NET standard LED
Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Methods Compact controls
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Head (proportional or not)
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Head (proportional or not) Chin (proportional or not)
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Head (proportional or not) Chin (proportional or not) Mini joystick (proportional)
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional)
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system Others
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system Others Flag
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system Others Flag Positioning belt
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Retractable central support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system Others Flag Positioning belt Attachment points for transport straps
With anti-puncture Control boxes R-NET standard LED Compact colour R-NET with potentiometer and toggle switch R-NET Bluetooth and infrared with large display Joystick extension: ball, spherical cone, stick, "T" type, mushroom, "U" type Fixed side support with forward/backward adjustment Angle retractable lateral support Adaptive controls Head (proportional or not) Chin (proportional or not) Mini joystick (proportional) Breath control (non-proportional) Trajectory correction system Others Flag Positioning belt Attachment points for transport straps Adjustable stump support

4. INSTALLATION AND ADJUSTMENTS



Adjustments to your wheelchair should only be performed by health care professionals. Improper adjustments can cause injury and/or damage to the occupant, the assistant, the wheelchair, or the environment.





After making any adjustments and before using the wheelchair, make sure that all hardware is tightly secured. Make sure all locking mechanisms are engaged before using the wheelchair.

4.1 Rear cover

The rear cover must be removed to access the wheelchair's mechanical and electrical components and to disconnect the batteries. However, you should always use your wheelchair with the cover in place.

4.1.1 REMOVING THE REAR COVER

- 1- Switch off the power to the control box.
- 2- Unscrew the wheel at the bottom of the cover, under the rear bumper (Figure 4-A).



Figure 4-A





3- Pull the top of the cover away from the top latch. (Figure 4-B).



Figure 4-B

- 4- Gently pull the cover toward you.
- 5- Disconnect the cable from the rear lights (Figure 4-C).



Figure 4-C

- 6- Disconnect the cable from the rear lights (Figure 4-C).
- 7- Place the cover in a safe location to avoid damaging the finish.

4.1.2 REPLACING THE REAR COVER

- 1- Move the cover closer to the back of the wheelchair.
- 2- Connect the rear light cable.
- 3- Insert the castor screw into the castor nut of the frame and tighten. Make sure the screw is aligned with the nut to make the operation easier.
- 4- Be careful not to pinch any electrical wires. The wires should run from each side of the seat brackets and not hang outside the cover.
- 5- Power up the control box and check that the position lights are working properly.



4.2 Adjusting the suspension

How the adjustment works:

Each shock absorber has a shock-absorbing piston covered by a coil spring. The spring can be compressed by an adjustment ring, to suit the occupant's preference, which can be either firm or soft, and does not affect the shock absorber's overall length (see Figure 5).



Figure 5

Figure 5-B

Suspension adjustment is done with an Orthofab suspension adjustment key (see Figures 5-A and 5-B). Clockwise rotation makes the suspension firmer, counter clockwise rotation makes the suspension softer.



Figure 5-C

Figure 5-D

the

same





Adjustment is easily done directly on the shock absorber attached to the wheelchair. Simply tighten or loosen the suspension according to the desired " L_A ".



Figure 5-E

i. ADJUSTING THE AXLE SHOCK (FRONT) (PC, PC-03, PCM)

For firm suspension, adjust the spring length (L_A) to 2 3/4 in. For soft suspension, adjust the spring length (L_A) to 3 in. (See Figure 5)

ii. Adjusting rear shocks

For firm suspension, adjust the spring length (L_A) to 2 7/8 in. For soft suspension, adjust the spring length (L_A) to 3 1/4 in. (See Figure 5)



4.3 Wheels

4.3.1 INSTALLING CASTOR WHEELS

The Oasis wheelchair can accommodate different models of castors. Your choice of one or the other will depend on the environment where you will most frequently use your electrically powered wheelchair. The wheels are mounted on a double fork (see Figure 6).

- 1- Power off the control box;
- 2- Using two (2) ½ in. or 13 mm wrenches, disassemble the assembly, the bolt, nut, both washers and both internal spacers;
- 3- Insert the spacer into the fork, in line with the hole;
- 4- Insert the desired wheel onto the screw then install the second spacer;
- 5- Replace the washer and nut and tighten. Make sure the wheel rotates freely.



Figure 6: Changing front wheels.





4.3.2 INSTALLING DRIVE WHEELS

- Fit the wheel rim onto the wheel hub, aligning the four (4) holes on the rim with the four (4) holes on the wheel hub (see Figure 8-A).
- 2. Install the four (4) screws (**A**) with their lock washers (**B**), then tighten with a 1/2 in. or 13 mm socket wrench (see Figure 8-B).
- 3. Gently insert the finishing plug with a rubber hammer, taking care not to scratch the paint (see Figure 8-C).



Do not remove the rear wheel by unscrewing the centre bolt. Use the 4 rim fixing screws instead.









Figure 8-B

Do not remove the rear wheel hub under any circumstances to install or remove a rear wheel. After making any adjustments, and before using the wheelchair, make sure that all hardware is tightly secured.



4.4 Positioning the seat

4.4.1 CHANGING SEAT ANGLE AND HEIGHT

The seat angle (called the tilt angle) can be adjusted for greater comfort. This adjustment is permanent. The tilt angle is increased or decreased by adjusting the floor-to-seat height.

The adjustment range is 3 in. front and back for wheelchairs with a fixed seat (i.e., $15 \frac{1}{2}$ to $18 \frac{1}{2}$ in. $\pm \frac{1}{4}$ "). To increase floor-to-seat height to $19 \frac{1}{2}$ or $20 \frac{1}{2}$ in., you must add +1 or +2 in. floor-to-seat height adjustment interfaces (see Section 4.4.2).

For wheelchairs with a 45° motorized tilt, front and rear height is $15\frac{1}{2}$ in. To change to $16\frac{1}{2}$ or $17\frac{1}{2}$ in., you must add +1 or +2 in. floor-to-seat height change interfaces. To change to 18 $\frac{1}{2}$ or 19 $\frac{1}{2}$ in., you must add +3 or +4 in. floor-to-seat height change interfaces (see Section 4.4.3).

FIXED SEAT:

- 1- Power off the control box.
- 2- Remove the battery boxes from the right and left sides
- (see Section 4.5.2.1).
- 3- Use a ½ in. or 13 mm open-end wrench to loosen (A) bolts and (B) nuts.
- 4- Adjust moving part (D) on column (C) to the desired height.
- 5- Replace both (2) bolts (A) and tighten firmly with new nuts (B).
- 6- Put the battery boxes back in place (see Section 4.5.2.2).



Figure 2-A: Front height and tilt angle.

NOTE: The occupant will be more stable with a tilt angle greater than 5°.



The steeper the tilt angle, the more likely the wheelchair will tip backwards on slopes or under heavy acceleration. Please test the wheelchair before handing it over to the user.



You can also change the rear floor-to-seat height. This adjustment is made under the back cover. Using a $\frac{1}{2}$ *in. or 13 mm wrench*, unscrew the (**A**) bolts and (**B**) nuts and adjust adjustment rod (**C**) with frame (**D**) and the base of bracket (**E**) to the desired height (see Figure 5-B).



Figure 5-B: Rear floor-to-seat height.

4.4.2 CHANGING SEAT ANGLE AND HEIGHT (ADDING +1 OR +2 IN.)

Your seat height can be adjusted to suit your environment and the seat cushions used.

It is also possible to modify the floor-to-seat height by adding +1 or +2 in. This requires specific parts to be added to the front and rear of the seat interface.

FIXED SEAT:



Figure 5-C: +1 in. and +2 in. adjustment interface on a fixed seat.



SEAT WITH 45° TILT:



Figure 5-D: 16 ¹/₂ in. and 17 ¹/₂ in. adjustment interface on a seat with a 45° tilt.

FOR THE FRONT AND BACK:

- 1- Power off the control box and remove the seat plate and cushion.
- 2- Use a ½ in. or 13 mm wrench to remove the seat interface stirrups.
- 3- Install the three (3) floor-to-seat height adjustment interfaces at the desired height and position (second hole from the front in both cases), with the screws provided in the assembly (see Figures 5-C and 5-D).
- 4- Return the stirrups to the same distance they were before disassembly, but over the adjustment interfaces that were just installed.
- 5- Replace the seat plate and cushion and power up the control box.

4.4.3 CHANGING SEAT ANGLE AND HEIGHT (ADDING +3 OR +4 IN.)

If you want to increase the floor-to-seat height by 3 or 4 in., use the interfaces provided for this purpose (see Figure 5-E). Place the interfaces at the same positions (see Figure 5-C). Follow the same steps.



Figure 5-E: 18 $\frac{1}{2}$ in. and 19 $\frac{1}{2}$ in. adjustment interface on a seat with a 45° tilt.





<u>NOTE</u>: Floor-to-seat height modification interfaces should be installed by (2) people for ease of operation. Be careful not to damage the electrical cables during handling.



The higher the seat is in relation to the ground, the more likely the wheelchair will tip backwards or sideways under heavy acceleration, sudden maneuvers or on slopes. Please test the wheelchair before handing it over to the user.

4.5 Batteries

4.5.1 BATTERY SELECTION

ORTHOFAB recommends that you have the batteries installed and maintained by an authorized service centre. Improper installation can seriously damage the unit and pose a hazard.

For proper performance, **ORTHOFAB** recommends using the following types of batteries:

- Deep cycle (mandatory);
- Group 22NF and 24GR;
- Gel or AGM.

Note: Only deep cycle batteries are designed and recommended for electrically powered wheelchairs.

NOTE: Do not use batteries designed for motor vehicles.

4.5.2 BATTERY INSTALLATION

When handling the batteries, hold them horizontally and avoid open flames. The acid in the batteries can cause severe burns and property damage. In case of skin contact, rinse immediately with plenty of water. In case of burns, ingestion or eye contact, rinse thoroughly and seek medical attention immediately.



Never bring the two battery terminals into contact, as this may cause a short circuit and severe injury. The 10 mm hex key for tightening the connections should be no longer than 3 inches or covered with insulation. The height of the battery terminals should not exceed 1 $^{1}/_{4}$ in. from the top of the battery.







Figure 9: Disconnecting the batteries.

- 3. Stand at the front of the wheelchair.
- Remove the front stop fasteners from the batteries (Figure 10 A, B, C, D).

1. If the wheelchair is equipped with a tilt mechanism, set it at a slight angle to remove the batteries before disconnecting them.

2 USE

2. Open the rear cover (section 4.1) and disconnect the power cables located at the rear of the frame (Figure 9) by pulling on the red straps.



Figure 10: Removing the stop



Figure 10: Remove the stop

- 5. Pull the box forward (see Figure 11).
- 6. In certain configurations, you may need to move the anchor ring to the back of the chair before removing the boxes.
- Stand to the side of the wheelchair and rotate the box outward until it is at a 45° angle to the front of the wheelchair (see Figure 12).
- 8. Gently slide the box towards you until you can rest the outer corner on the floor.
- 9. Firmly grasp the box and place it gently on the floor.



Figure 11: Remove battery boxes.



Figure 12: Remove battery box completely.

4.4.2.2 BATTERY INSTALLATION OR REPLACEMENT



- 1. Align the strap loop toward the front of the wheelchair.
- 2. If your battery has a handle, proceed to step 3. If not, you may use the box strap to lift and insert the battery. Once the battery is inserted, pull the strap out 4 in. to the front.
- 3. Place the strap at the bottom of the box. The loop should be at the front of the wheelchair and use 4" of strap. The rest of the strap should extend to the back.
- 4. Pass the strap through the cover as shown.

5. Make sure that the connectors provided by Orthofab are properly bolted to the battery terminals.



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Figure 15: Battery connection.



Figure 16: Maximum battery terminal height.

6. Identify the battery's negative terminal (-) (NEG) and place the black wire clamp and black cap on it.

- 7. Align the terminal as shown in the diagram and firmly tighten the terminal with a 10 mm open-end wrench.
- 8. Cover the battery terminal with the plastic cap.
- 9. Follow the same procedure for the positive terminal (+) (POS).
- 10. Inspect your work before closing the box.
- 11. Close the box and lock the latch.



Using the wrong type of battery may permanently damage the wheelchair and impair its performance. Therefore, do not use any other type of batteries than those recommended by ORTHOFAB.



2 USE



4.5.2.2 REPLACING THE BATTERY BOX

NOTE: THERE IS A LEFT AND A RIGHT BOX.

To differentiate the direction of the boxes, the power cable outlet (Figure 19) must always be located on the outside of the wheelchair.





Figure 17: Replacing the boxes

- Position the back of the box on the edge of the frame, at approximately a 45° angle to the front of the wheelchair. Lift the box so that the inside corner rests on the frame (Figure 17-A).
- Push the boxes firmly so that they are positioned laterally inside the frame (Figure 17-B).





Figure 18: Locking the battery boxes





Figure 19: Battery connection

- 3. Insert the stop and press it firmly onto the boxes (Figure 18-A).
- 4. Insert the locking pin (Figure 19-B).
- 5. Place the locking pin on the rod (Figure 18-C).
- 6. Tighten the fastener (Figure 18-D).
- 7. Reconnect the power cables at the back of the frame (see Figure 19).
- 8. Replace the cover (see Section 4.1).



4.6 Leg support assembly

4.6.1 ADJUSTING THE LENGTH OF THE LEG SUPPORT ASSEMBLY

- 1- Using a 7/16 in. open-end wrench, completely unscrew the screw as shown in figure 20 below. This screw fits all models.
- 2- Adjust to the desired length.
- 3- Retighten the screw with a maximum torque of 100 lb-in, making sure to insert the washer.



Figure 20: Length adjustment

Note: It is recommended to always leave a 3-inch gap between the ground and foot supports.



Make sure that the telescopic tube is inserted at least 2 inches into the post.

4.6.2 ANGLE ADJUSTABLE FOOT SUPPORT

- 1. Loosen the screw (B) using a 10 mm open-end wrench (see Figure 21);
- 2. Position the plate at the desired angle;
- **3.** Firmly tighten the screw (**B**) (torque 140 in-lbs.).



4.6.3 CHANGING THE DEPTH OF THE ANGLE ADJUSTABLE FOOT SUPPORT

- 1. Remove the two (2) Phillips screws (A) that hold the end piece (see Figure 21);
- 2. Pull the foot support out of the bracket;
- 3. Push in to the desired depth;
- 4. Replace the end piece and (A) Phillips screws.



Figure 21: Angle and depth adjustment

4.6.4 ADJUSTING THE DEPTH OF THE ADJUSTABLE HEEL BRACE



Figure 21-C: Adjusting the depth of the heel brace

4.6.5 ADJUSTING LOWER LEG SUPPORT HEIGHT

- 1- Loosen the hex head screw (**B**) completely, with a 7/16 in. wrench as illustrated in Figure 22 below..
- 2- Adjust lower leg support (A) to the desired height by sliding the bracket along the foot support tube.
- 3- Retighten the screw with a maximum torque of 100 lb-in, making sure to insert the washer.





Figure 22: Adjusting lower leg support height.





4.6.6 ADJUSTING LOWER LEG SUPPORT DEPTH



The lower leg support can be adjusted in depth to be closer to or further away from the leg. The adjustments can be made over a 1 in. range, in 1/2 in. increments.

- 1- Use a *4 mm Allen wrench* and an *8 mm openend wrench* to remove the screw and nut.
- 2- Select the desired depth from the (3) possible positions.
- 3- Replace the screw and nut.

Figure 23: Adjusting lower leg support depth.

4.7 Angle-adjustable back support

- 4.7.1 CHANGING BACK SUPPORT ANGLE
- POSITIONNEMENT POUR ANGLE DE DOSSIER



Figure 24-A: Back support angle setting.

You can adjust the standard back support tilt angle on the Oasis electrically powered wheelchair. Figure 24-A illustrates the mounting positions associated with the desired back support tilt angles. The back support tilt angle is the measured angle between the seat and the back support.

<u>Note:</u> For a rigid back support, both sides must be done simultaneously (see Figure 24-B).

- 1- Use two (2) 7/16 in. open-end wrenches to unscrew and remove bolt (**C**).
- 2- Tilt the back support to the desired angle by aligning the hole in the tube with one of the holes in the back support angle adjustment plate (see Figure 24-A).
- 3- Tighten the bolt and nut (**C**) securely.








To do this:

- 1- Using a 7/16 in. open-end wrench, slightly loosen screws (**A**) and (**B**);
- 2- Slide the assembly to the desired position;
- 3- Make sure that both (2) sides are at the same distance from the front of the seat;
- 4- Firmly tighten screws (A) and (B).

Figure 24-B: Adjusting back support depth.

4.7.3 CHANGING BACK SUPPORT HEIGHT

Back support post height can be adjusted. The adjustments can be made over a 3 in. range, in 1 in. increments (see Figure 25).



1- Use a 7/16 in. open-end wrench to remove the screw and washer.

- 2- Slide the back support post to the desired height.
- 3- Replace the screw and washer and tighten firmly.

NOTE:

If a back support bar connects both sides, it is recommended to do both sides simultaneously.

2 USE



4.8 Control box attachment



To make any of the adjustments indicated below, you must switch off the wheelchair (joystick off) and disconnect the control box cable.

4.8.1 DEPTH ADJUSTMENT



Figure 26: Adjusting control box support depth.

4.8.2 HEIGHT ADJUSTMENT

You can adjust the depth of the control box by moving the support. The support is attached under the arm support (left or right).

- 1- Loosen the two (2) clamp screws(A) located under the arm support padding.
- 2- Slide the support's square bar into the arm support tube until it reaches the desired position.
- 3- Tighten the two (2) locking screws.



The support will adjust the height of the housing over a (2) in. range, in $\frac{1}{2}$ in. increments.

- 1- Use a *10 mm open-end wrench* to remove the control box support adjustment screw (**A**).
- 2- Adjust the box to the desired height.
- 3- Reinstall the control box support adjustment screw (A), making sure to insert the lock washer.

Figure 27: Adjusting control box support height.

4.8.3 ADJUSTING THE LATERAL POSITION

You can adjust the lateral position of the control box by adding a lateral adjustment bar (**D**) (see Figure 28).

- Using a 3 mm Allen wrench, disconnect the cable from the control box (F) and remove the two (2) screws (A) that hold the control box to the retractable support (E).
- 2- Install the lateral adjustment bar (**D**) on the control box support (**C**), using the two (2) screws provided.
- 3- Position the bar (D) on the retractable support (E), aligned with the fixing holes.
- 4- Select your adjustment and replace the two (2) screws (B).
- 5- Reconnect the control box cable.



Figure 28: Lateral adjustment of the control box support.

4.9 Control system for 4 motorized accessories

If your wheelchair is equipped with electrically powered accessories, such as a motorized 45° tilt, or a motorized reclining back support, you can operate each of these accessories directly from control box joystick. Please refer to the **R-NET** control system user manual for operating instructions.



Control system for 4 motorized accessories



The control system for 4 motorized accessories is directly connected to the R-Net controller.

When the Oasis is controlled with emergency flashers and light control via the control box, you need a control system for 4 accessories with lights.

DOSSIER / BACKREST JAMBE G. / LEFT LEG	DOSSIER / BACKREST 7 / JAMBE G. / LEFT LEG
BASCOLE / TILT JAMBE D. / RIGHT LEG	BASCULE / TILI/JAMBE D. / RIGHT LEG
4 accessories without lights	4 accessories with lights

NOTE: There is also an external accessory control. If the chair is equipped with only one motorized accessory, you can operate it from the control box for 1 accessory (figure on the above right) via the accessory's toggle switch. This box can be attached on the left or right of the wheelchair under the arm support.

4.10 Main cable

The main cable provides all the electrical connections for all accessories on the wheelchair.



To make any adjustments, power off the wheelchair and disconnect the cable from the control box.

The adjustments to your electrically powered wheelchair should be done by a health care professional. Improper adjustments can cause injury and/or damage to the occupant, their assistant, the wheelchair or the environment.





Do not modify any electrical components (fuse amperage, wire connections, etc.) of the electrically powered wheelchair.

4.11 Leg support assembly

Depending on the options selected, the leg support assembly consists of the foot support, the heel brace and the lower leg support. It can be standard or compensating-elevating, to provide support for the entire leg by compensating for the distance of the foot support. All our leg support assemblies are retractable and removable.

NOTE: If your wheelchair is equipped with a motorized leg support assembly, see Figures 31-A and 34-B for use of control boxes and controls. If both leg support assemblies operate independently, use the control box and not the control box.

4.11.1 RETRACTING

The foot and leg supports are retractable (e.g., for transfers).



- 1- Slightly loosen the lock and press down on the plastic-covered release (Figure 29-A).
- 2- Retract the foot support or leg support to the outside (Figure 29-B).

4.11.2 REMOVABILITY

5.1.2.1 DETACHING THE WHEELCHAIR'S FOOT OR LEG SUPPORT

- 1- Retract the foot support (see previous section 4.11.1).
- 2- If the wheelchair is equipped with an elevating lower leg support assembly, disconnect the power to the leg support motor. The connector is located near the motor.
- 3- Lift the leg support assembly up and set it in a safe place.



Replacing the leg support assembly

- 1- Install the foot support on the anchor pivot, taking care to align the rods with the holes.
- 2- Fold the leg support assembly forward.
- 3- Make sure the leg support assembly is locked in place.
- 4- If the wheelchair is equipped with electrically powered wheelchair leg supports, reconnect the power to the leg support assembly motor. The connector is located near the motor.





4.11.3 RAISING AND LOWERING THE LEG SUPPORT ASSEMBLY

4.11.3.1 RAISING THE LEG SUPPORT

- 1- Pull the leg support up, using the plate support tube.
- 2- Move it to the desired position.



Figure 31: Manual elevating leg support.

- 4.11.3.2 LOWERING THE LEG SUPPORT
- 1- Use the plate support tube to hold the leg support.
- 2- Press the foot support release while holding the leg support, then lower it to the desired position (see Figure 31).



4.11.4 MOTORIZED LEG SUPPORT

- 4.11.4.1 REMOVING THE MOTORIZED LEG SUPPORT ASSEMBLY
- 1- When removing the leg support, make sure to disconnect the power connector (A) (see Figure 31-A).
- 2- When replacing the leg support, make sure to reconnect the power connector (A) (see Figure 31-A).



Figure 31-A: Motorized elevating leg support.

4.1.5 LOCKING THE RELEASE OF THE LEG SUPPORT ASSEMBLY

The leg support should be locked when the wheelchair is used as a seat in a motor vehicle.

The lock may also prevent unintentional retraction of the wheelchair.

4.11.5 FOOT SUPPORT

Depending on requirements, foot supports can be separate, one-piece plate, standard length or oversized. They are either foldable or adjustable in angle and depth.



4.11.6 LOWER LEG SUPPORT

Depending on requirements, lower leg supports are adjustable in angle, height, and depth.

4.12 Arm support

Our *Oasis* electrically powered wheelchairs are available with "T", "U", or "L" arm support design. The choice depends on the occupant's needs and wheelchair configuration.

4.12.1 T-SHAPED ARM SUPPORTS

REMOVING THE DETACHABLE ARM SUPPORT

- 1- Loosen the black clamping screw (A) located on the arm support base at the seat structure. Two (2) or three (3) turns should be sufficient (see Figure 32).
- 2- Press the release (B) to release the arm support.
- 3- Remove the arm support by pulling upwards.



Figure 32: Removable and height adjustable T-shaped arm support.

REINSTALLING THE ARM SUPPORT

- 1- Insert the arm support into its base (see Figure 32).
- 2- 2- Close the release (**B**) by pulling it up and down.
- 3- Hand-tighten the black clamping screw (A).



<u>Note:</u> Tightening the black clamping screw (A) eliminates any slack between the arm support and the base.

ADJUSTING THE HEIGHT OF THE ARM SUPPORT

- 1- Using an 8 mm open-end wrench and a 4 mm Allen wrench, slightly loosen the lock nut and screw (**F**) on the arm support side panel (**H**) (see Figure 33-A).
- 1- Press down on the lock (**D**) to release the telescopic tube.
- 2- Adjust the arm support to the desired height.
- 3- Close the lock (D) by pushing it up and towards the back of the wheelchair.
- 4- Hand-tighten the black clamping screw (F).

4.12.2 U-SHAPED ARM SUPPORTS

RETRACTING THE ARM SUPPORTS

- 1- To retract the arm support, press the joystick (**A**), and then grasp the transfer support (**G**) with an upward motion (see Figure 33-A).
- 2- To fold down the arm support, align the transfer support (G) in the base (B), and apply downward pressure. You may need to apply slight pressure to the joystick (A) to allow it to lock.
- 3- After replacing the arm support, make sure the arm support is locked into the base (**B**) by trying to lift it with the transfer support.



Figure 33-A: Height adjustable U-shaped arm supports.



REMOVABILITY

- 1- Following the procedure in Section 5.3.1, slightly retract the arm support from its front base (**B**) (see Figure 33-A).
- 2- Use a 1/8 in. hex key to loosen the screw (E) on the base (C). Lift the arm support assembly with the arm support pad (J) to slide it off the rear base (C).
- 3- To reinstall the arm support, first insert the rear rod into the rear base (C).
- 4- Tighten the screw with its locking ring (E), then fold the arm support back as described in 5.3.1.
- 5- After replacing the arm support, make sure it is locked in its base (**B**) by trying to lift it with the transfer support (**G**).

HEIGHT ADJUSTMENT

- 1- Using an 8 mm open-end wrench and a 4 mm Allen wrench (see Figure 33-A), slightly loosen the lock nut and screw (**F**) on the arm support side panel (**H**).
- 2- Press the lever (D), and then lift the arm support by holding it by the arm support pad (J) to slide it to the desired height. There should be a small "click" at each adjustment height, indicating that the lever (D) has locked into place at the new adjustment height.
- 3- Tighten the screw and lock nut (F) for a permanent fit.

4.12.3 L-SHAPED ARM SUPPORTS

SWIVELING THE ARM SUPPORT OUTWARD

1- To swivel the arm support outward, lift the arm support upward and



press outward.



2- To close the arm support, turn it towards the wheelchair. It will lock itself by its own weight.





4.13 Reclining back support

The wheelchair seat can be equipped with a pneumatic (manually operated) or electrical reclining back support. The reclining back support provides a change of position, while reducing the risk of shearing (stress under undesirable tension) for optimal comfort in the relaxation position.

4.13.1 PNEUMATIC MECHANISM

- 4.13.1.1 RECLINING THE BACK SUPPORT
- 1- Press the tilt lever on the seat backwards (see Figure 34-A).
- 2- Recline the back support to the desired angle.



For your safety, a switch prevents driving when the back support is reclined more than 25 degrees.

4.13.1.2 RAISING THE BACK SUPPORT

1- Press the reclining lever located near the back of the seat (see Figure 34-A).

2- The back support will elevate by itself. Backpacks or any other objects on the back support may interfere with the reclining mechanism.



Figure 34-A: Pneumatic reclining back support.



4.13.2 ELECTRIC MECHANISM

4.13.2.1 RECLINING THE BACK SUPPORT

- 1- If your wheelchair has one power accessory control, use the control box located on the side (right or left) of the wheelchair and pull the switch back (see Figure 34-B). If your wheelchair has more than one power accessory, or if your back support is controlled via a joystick, use the control box joystick (see the R-Net user manual).
- 2- Recline the back support to the desired angle.



For your safety, a switch prevents driving when the back support is reclined more than 25 degrees.

4.13.2.2 RAISING THE BACK SUPPORT

- 1- Using the same control box, push the switch forward (Figure 34-B).
- 2- Raise the back support to the desired angle. Backpacks or any other objects on the back support may interfere with the reclining mechanism.





Figure 34-B: Electric reclining back support





4.14 Height and depth adjustable head support

- 1- Turn the handle (**A**) to adjust the depth of the head support and turn the two handles (**B**) to adjust the height (see Figure 34-C).
- 2- After selecting the head support height position, adjust the retaining ring (**C**) on the head support anchor (**D**) for a better fit, and to indicate the position when replacing the head support.



Figure 34-C: Height and depth adjustable head support





4.15 Pelvic positioning belt

Your **ORTHOFAB** wheelchair is equipped with a pelvic positioning belt. This is not an approved seat belt for transport in a motor vehicle or aircraft.

The belt should fit snugly around the hips, to eliminate the possibility of slipping.



NOTE: For your comfort and safety, make sure that the belt provided with the wheelchair is adjusted to your waist.





To adjust the belt length, slide the strap through the plastic loops, ensuring that it follows the direction shown (see Figure 35).

NOTE: The free part must always extend three (3) inches beyond the plastic loop.

Figure 35: Adjusting the length of the pelvic positioning belt.



Figure 36: Preventing the belt from slipping.

To prevent the belt from slipping, reinsert the free end into the loop, as shown in Figure 36.



4.16 Manually releasing the brakes



Always power off the control box before pushing the wheelchair in freewheel mode.

The Oasis PC wheelchair is equipped with a mechanism that allows a person to push the wheelchair when it is not in use, or when the batteries are empty. Always power off the control box before manually pushing the wheelchair (see Figure 37).



NOTE:

For safety reasons, the wheelchair cannot be driven electrically when it is in freewheel mode.

Figure 37: Brake release handle.

<u>NOTE</u>: DO NOT INSTALL ANYTHING BEHIND THE BACK SUPPORT THAT WILL INTERFERE WITH THE BRAKE RELEASE HANDLE. DO NOT OPERATE THE HANDLE WHILE THE WHEELCHAIR IS RUNNING.

4.16.1 PERMANENT MODE



4.16.1.1 RELEASING THE BRAKES

- 1- Hold the handle like a bicycle brake lever and press it upwards.
- 2- Push the red safety latch down with your finger so it fits into the notch that locks the handle. Release the handle, so the wheelchair is in freewheel mode and can be pushed. A safety switch prevents driving.

Figure 38: Permanently releasing the brakes.



Before operating this mechanism, make sure the wheelchair is on an even surface. If you are on an incline, the weight of the wheelchair could pull you down or cause you to lose your balance.

4.16.1.2 ENGAGING THE BRAKES

- 1- Press the red latch to unlock the handle. 53
- 2- Release the **Gandle to Fowe**r lint; Although the served release the latch.



Figure 39: Engaging the brakes.



If the control box is powered on, it will be difficult to push the chair because of resistance from the motors. In this case, power off the control box.

4.17 Lights



Before moving outdoors, make sure the lights are working properly, particularly when your visibility or the visibility of others may be limited by weather conditions or time of day.

4.17.1 Reflective devices

Electrically powered wheelchairs and manual wheelchairs **ORTHOFAB** are equipped with optional reflective devices. There are two white reflective rings and two red strips available.





The 4 positioning lights are activated by the switch on the side of the wheelchair arm support (see Figure 42).



Figure 42: Positioning lights control switch.

• Optional: 2 orange lights on each side, combined with a light module that controls the emergency flashers (see Figure 42) and replaces the positioning light switch. Refer to the RNET module instruction manual for more details.





4.18+45° tilt mechanism (optional)

The 45° tilt mechanism should only be used when the wheelchair is on an even surface..

Before operating the 45° tilt mechanism, make sure there is adequate space above the occupant's knees, behind the back support and above the foot supports.

When using the tilt, keep your hands away from the seat.



For the occupant's safety, the safety switch that prevents tilting should not be adjusted to an angle greater than 10°.

ORTHOFAB ASSUMES NO LIABILITY FOR ACCIDENTS THAT MAY RESULT FROM ANY ADJUSTMENT THAT ALLOWS THE WHEELCHAIR TO OPERATE AT AN ANGLE GREATER THAN 10°.

4.18.1 TILTING THE SEAT

- If you have only one power accessory on your wheelchair, use the accessory control box on the side (right or left) of the wheelchair, and push the switch forward to tilt back and pull back to tilt forward. If you have more than one power accessory, or the tilt is controlled by a joystick, you will need to use the joystick on the control box (see Figure 43 and R-Net User's Manual).
- Tilt to the desired angle.



Do not incline the tilt mechanism if the wheelchair is in a specialized transit vehicle.



Figure 43: 45° tilt mechanism activated.





4.19 Specialized transit

4.19.1 General warnings

The **Oasis** electrically powered wheelchair line complies with BNQ 6645-001 and ISO 7176-19 requirements. The wheelchair must face the road in a motor vehicle, and both lap and shoulder belts should restrain the occupant, as the model has been subjected to the frontal impact test. The model subjected to frontal impact testing was positioned as a seat in a vehicle, facing the road and with a restrained dummy. The model was designed and subjected to frontal impact testing when used as a forward-facing seat in a motor vehicle. The dynamic tests were performed in a forward-facing direction, using a dummy restrained by lap and shoulder belts (e.g., a shoulder belt as part of a three-point belt restraint system).

Do not alter or modify the wheelchair's mounting points or structural and frame parts/components without permission from Orthofab.







Do not place any object near the seat belt release button to prevent accidental release.
Do not recline the wheelchair seat angle more than 30° when using it as a motor vehicle seat.
Do not rely on postural components to restrain the occupant in a moving vehicle.

Have the wheelchair inspected for damage if it is involved in a
sudden stop. Replace any wheelchair that is involved in a collision.

	Do not use the tilt function when the seat belt is in use, as it may cause the belt to over-tighten.
--	--

4.19.2 Directions for use

Section 1 – General information

- The **Oasis** range model has been tested according to the 7176-19 standard, with specific configuration and components that comply with standard BNQ-6645-001/2019. When used as a seat in a motor vehicle, the wheelchair must be immobilized in a forward-facing position. Other positions have not been impact tested. However, complying with the standard does not preclude use of the rear-facing wheelchair in large, accessible vehicles with rear-facing wheelchair passenger seats.
- The impact tests were conducted with a dummy restrained by pelvic and shoulder belts, and both should be used when the wheelchair is used as the seat in a motor vehicle.
- The shoulder belt, not supplied by **ORTHOFAB**, must comply with Section 5.1 of ISO-7176-19 and be labeled as such.
- A four-point (4) or base anchor system should be used to secure the wheelchair in a motor vehicle (check compatibility of the base anchor system with ORTHOFAB).
- Ease of access and maneuverability in motor vehicles can be significantly affected by the wheelchair's size and turning radius. Smaller wheelchairs with a smaller turning radius will dramatically improve ease of access for positioning a wheelchair forward in a motor vehicle.
- Removable components and/or accessories should be secured independently.

- Postural components should NOT be used as a restraint system.
- The wheelchair weighs 129 kg in its test configuration.

Accommodation assessment of wheelchair according to Annex D of ISO 7176-19

Criteria	Assessment
Ease of belt fitting	Excellent
Quality of belt fit	Excellent

Section 2 – Instructions – Using the wheelchair as a seat in a motor vehicle

Anchor points

Use the anchor points on the wheelchair, following the directions provided in this note. Look for the following symbol, which indicates anchor points that comply with the ISO 7176-19 standard.



Pelvic safety belt

- Only use a pelvic safety belt that complies with section 5.1 of ISO 7176-19.
- Install the pelvic belt on the anchor points at the back of the wheelchair.
- Thread the pelvic belt between the back support and the arm support.
- Do the same on the other side.

The safety belt angle to the horizontal should be between 30° and 75°. Whenever possible, it is preferable to aim for the higher angle of 75°.





The belt should pass over the occupant's body and not over parts of the wheelchair, such as arm supports or wheels.



The shoulder belt should fit snugly over the body through the midpoint of the shoulder and across the centre of the abdomen.







Make sure the belts are not twisted. They should be adjusted as tightly as possible, allowing for the comfort of the occupant.





- Your seat belt is factory-fitted at **ORTHOFAB** and should not be modified/removed or replaced without **ORTHOFAB**'s instructions.
- Slide the pelvic belt to meet the occupant's hips as directly as possible.
- Do the same on the other side.



Section 3 – Checks

The following items should be inspected before using the wheelchair as a seat in a motor vehicle.

Leg support anchor

It is preferable to lock the leg support release to avoid accidental release during transport, or to prevent the leg support from being knocked off in an accident.





4.20 Recharging the batteries and charger

Consult the safety instructions on page 8 and following pages.

- Recharge the batteries in a ventilated area.
- Do not smoke near the charger while the batteries are recharging.
- Do not stay in the wheelchair while the batteries are recharging.

The battery charger is designed for fast and safe recharging of the batteries for **ORTHOFAB** electrically powered wheelchairs. It can recharge lead-acid batteries and gel batteries.

4.20.1 DESCRIPTION OF THE BATTERY CHARGER



Figure 45: Integrated battery charger.

The **ORTHOFAB** battery charger is simple to use. It is a high-performance and reliable system. The battery charger is fully automatic, meaning that it will shut itself off when the batteries are fully charged. The battery charger charges both GEL and ACID batteries. The device adjusts automatically.





4.20.2 SWITCH AND INDICATOR FUNCTIONS



5.11.2.1 POWER INDICATOR

The red **POWER** indicator shows whether the battery charger is on or off.



5.11.2.2. CHARGE INDICATOR

The other indicator shows when the charger is in charging mode - yellow indicates that the charger is in charging mode and green indicates that the battery is fully charged.

The charger has an <u>automatic internal voltage selector</u>; it will select the voltage itself, depending on your location or country. North American standard is 110 volts.

Α

4.20.3 START-UP



Figure 45-A: Cord winder for 110 VAC power cord

- Unroll the power cord (A) inside the cord winder behind the back support (see Figure 45-A).
- 2. Connect the charger plug (**B**) to a 110volt wall outlet (see Figure 45-A).

<u>NOTE</u>¹: The orange indicator light (**C**) illuminates; this means the batteries are charging. The red light (**D**) will indicate that the charger is on (see Figure 45-B);

<u>NOTE</u>²: The orange light (**C**) turns green when the batteries are fully charged.



Figure 45-B: Cord winder for 110 VAC power cord





4.20.4 POWERING OFF THE CHARGER

1. Unplug the charger (110 VAC) plug (**B**) from the 110-volt socket (or 220 volts, depending on the region of use).

2. Rewind the power cord (**A**) into the cord winder behind the back support (see Figure 45-A).



Please take the time to secure the integrated charger wire to avoid injury when using the wheelchair.

4.21 Thermal circuit breakers

The wheelchair has two (2) thermal circuit breakers, one on each battery box. These circuit breakers protect the components from short circuits.



If the thermal circuit breaker trips

- 1- Power off the control box.
- 2- Press the circuit breaker switches on each battery box (see Figure 41).
- 3- Wait about 10 seconds, then switch the control box back on.
- 4- The wheelchair should be functional.

Figure 41: Thermal circuit breaker

NOTE: IT IS POSSIBLE THAT THE CIRCUIT BREAKERS MAY BE TRIPPED BECAUSE OF MOTOR OVERLOAD.

4.22 Storage

• Do not leave your wheelchair in the rain, immerse it, or store it in a damp or very cold place, as this may cause unsafe operation.



If the problem persists, consult a technician at an authorized service

Do not store your wheelchair in an unattended area.

4.23 Transporting the wheelchair

- Make sure to protect the control box when transporting the wheelchair. Pay close attention to the cables.
- Do not lift the wheelchair by its detachable components (arm and foot supports, etc.).
- Secure the wheelchair during transport to avoid movement.
- Make sure that batteries stay horizontal to avoid acid spills.

5 MAINTENANCE

5.1 Maintenance procedures

Your wheelchair, like any other vehicle, will need proper maintenance for safe and efficient operation. Routine maintenance will extend the life and performance of your chair.

Take your chair to a qualified dealer or authorized service centre once a year for thorough inspection and maintenance. Even though bolts, screws and nuts are non-locking, a regular cleaning will reveal any loose or worn parts.

5.2 Checklist

Initial adjustments should be made according to your personal needs. For all subsequent maintenance, please follow the procedure below.

	Upon delivery	Monthly	Quarterly
1. General: The chair rolls in a straight line and does not pull to one side.	X		Х
 Clothing guard: Check for deformed or protruding parts and make sure all fasteners are secure. 	x		x
3. Solid but easy to retract.	X		Х
4. Arm support padding: Check for tears, check the trim mounting bolts.	X		Х
5. Seat & back support covers: Check for tears or sagging.	Х		
 Actuator and cable: The cables release completely and the handles snap back into place when released. 	x		x
7. Gas cylinders: Check for oil leaks.	X		Х
 Front wheels: Check for proper tension by rotating the wheel; it should stop gradually. Adjust the bearing if the wheel wobbles or stops abruptly. 	x	х	
9. Tires: Check for wear. Check tire air pressure.	X	Х	
10. Cleaning: Clean all parts, including padding.			X
11. Check battery fluid level if battery service is required.		Х	
12. Check battery charger fan for proper operation.		X	

5.3 Cleaning

- Always keep the control box and joystick clean.
- Do not use abrasives or solvents that can damage the surface finish of the cover and metal parts. Use a mild soap with a little water and a soft cloth.
- Do not use alcohol-based detergents or thinners.
- Do not spray the wheelchair with water, as this could damage critical components of the unit.

5.4 Batteries

5.4.1 NEW BATTERIES

Charge/drain the batteries at least 5 times

- When installing new batteries, you should complete the charge/discharge cycle at least 5 times to reach their full capacity. One complete cycle is achieved by draining the batteries from 100% to 20%. You can use the charge indicator on the wheelchair to check that the battery is at 20% (20% = 2 indicators left on the control box).
- If these discharge cycles are not completed, it can directly affect the electric wheelchair's battery life.

5.4.2 ROUTINE USE

- Recharge the electrically powered wheelchair after use avoid long charge intervals (more than one week). You do not need to exhaust the batteries before plugging in the charger.
- Wait until the indicator shows the batteries are fully charged before disconnecting the charger (when the yellow light turns green).
- Do not charge the batteries more than once a day.

5.4.3 STORAGE

- Always store batteries in a cool place (between 10° and 20° Celsius) and fully charged.
- Batteries should be stored indoors during the winter. If this is not possible, make sure the batteries are fully charged for the winter. Charge the batteries at least once a month to prevent freezing and deterioration.



5.4.4 BATTERY CLEANING

- To avoid contact between the two poles caused by dust or waste accumulation, clean the outside of the batteries with a little water and baking soda. This will extend battery life.
- Remove any signs of oxidation.
- Check the tightness of the terminal connectors.
- Apply electrical grease to terminals and connectors.

5.5 Driving in a straight line

- On a smooth, flat surface, make sure the wheelchair stays in a straight line with the joystick fully forward. If the wheelchair tends to pull to the left or right, check the tire pressure.
- If the problem persists, consult a technician at an authorized service centre.

5.6 Wheels

5.6.1 **PNEUMATIC WHEELS**

- The front and rear pneumatic wheels should be inflated to the pressure indicated on the tire.
- Low air pressure affects wheelchair performance, makes handling more difficult and reduces battery life by using more energy.
- Replace tires at the first sign of wear.

5.6.2 FRONT WHEELS

- Make sure the front wheels pivot easily on their axles.
- If you notice any resistance, axial play or warping of the wheel, consult a technician at an authorized centre.

5.6.3 REAR WHEELS

- Check that the rim mounting screws are tight.
- If the wheel is warped, consult a technician at an authorized centre.



5.7 Releasing the brakes

- Power off the control box.
- Release the brakes (see Section 4.16).
- Push the wheelchair: the wheelchair should be easy to push.
- If not, consult a technician at an authorized service centre.
- Re-engage the brakes.

5.8 Built-in battery charger

- Always check the fan on the battery charger during maintenance. It's important that the fan is operating as soon as you connect the charger to the 120 VAC power supply.
- If you notice any discrepancies in the charger's performance as described above, consult a technician at an authorized centre.



6 TROUBLESHOOTING GUIDE

If any of the following problems are diagnosed, check the potential causes listed. If the suggested solutions do not solve the problem, consult a technician at an authorized service centre.

Your wheelchair's electronic control and charger manuals may also provide solutions.

Control box lights do not illuminate; nothing is working

Possible causes	<u>Solutions</u>
The thermal circuit breaker switches on the battery boxes are not pushed all the way.	Reactivate the battery thermal circuit breakers. See Section 4.21.
The battery boxes are not connected properly.	Check battery connections. See Section 4.5.2.
The controller's power connector is unplugged.	Consult a technician at an authorized service centre.
The control box is not connected.	Consult a technician at an authorized service centre.

The control box lights illuminate; the wheelchair does not respond to commands from the joystick

Possible causes

The internal charger is plugged into a 120V power source.

The wheelchair has a motorized seat tilt mechanism or reclining back support and the tilt angle is unsuitable for driving.

Battery voltage exceeds 28 volts or is less than 16 volts.

The brake release handle is locked.

Solutions

Unplug the charger. Properly store the cable in the space provided.

Reset the seat tilt to the horizontal position or raise the reclining back support.

Have a technician at an authorized service centre check the batteries and the charger. Recharge the batteries.

Engage the brakes (see Section 4.16).


The wheelchair does not maintain a straightforward trajectory when pushing the joystick fully forward.

Possible causes

Tire pressure is too low. Ball bearings are damaged.

One of the motors is faulty.

The joystick is incorrectly calibrated.

HOFAB

Solutions

Inflate to 35 psi.

Consult a technician at an authorized service centre.

Consult a technician at an authorized service centre.

Consult a technician at an authorized service centre.

The wheelchair lacks power

The controller temperature is too high, and the

Possible causes

engaged.

Tire pressure is too low.

thermal protection system is

Speed level is set too low.

Battery temperature is too low.

Batteries are insufficiently charged.

Solutions

Inflate to 35 psi.

Let the controller cool down for about 5 minutes and restart.

Recharge the batteries as described in the charger section (**5.10**).

Consult a technician at an authorized service centre.

Store the wheelchair in a place where temperature is between 20°-25°C and wait 6 hours. Restart.

One or more motorized accessories do not work

Possible causes	Solutions
The accessory power cord is poorly connected or cut.	Consult a technician at an authorized service centre.
The main cable's protection fuse is defective.	Replace the fuse (12A AGC).



6.1 Charger malfunction

If any of the following problems are diagnosed, check the potential causes listed.



If the suggested solution does not solve the problem, consult a technician at an authorized service centre.

6.1.1 CHARGER LIGHTS DO NOT ILLUMINATE

POSSIBLE CAUSES	SOLUTIONS
THE INPUT FUSE IS BURNT OUT.	CONTACT YOUR AUTHORIZED SERVICE CENTRE.
THE CONNECTING PLUG (110 VAC) IS NOT CONNECTED TO THE WALL OUTLET.	CONNECT THE CHARGER'S CONNECTING PLUG (110 VAC) INTO A WALL OUTLET.
THERE IS NO POWER IN THE WALL OUTLET.	PLUG THE CHARGER'S CONNECTING PLUG INTO A DIFFERENT WALL OUTLET, OR MAKE SURE THAT THE OUTLET IS FUNCTIONAL.

6.1.2 BOTH RED LIGHTS REMAIN ON

POSSIBLE CAUSES	SOLUTIONS
THE CHARGER'S CONNECTING PLUG (24 VDC) IS NOT CONNECTED TO THE WHEELCHAIR.	CONNECT THE CONNECTING PLUG (24 VDC) TO THE WHEELCHAIR.
THE CHARGER'S OUTPUT FUSE IS BURNT OUT OR MISSING.	REPLACE THE FUSE WITH A FUSE OF THE SAME TYPE.

6.1.3 ONE RED LIGHT FLASHES

POSSIBLE CAUSES	SOLUTIONS
BATTERY VOLTAGE IS TOO LOW.	CONTACT YOUR AUTHORIZED SERVICE CENTRE.

ORTHOFAB

WARRANTY

ORTHOFAB GUARANTEES its **Oasis** electrically powered wheelchairs against any manufacturing defect for a period of five (5) years on the units and components from the date of possession by the insured person:

The warranty applies to units, components, parts, and workmanship in the event of breakage or malfunction due to a defect. The term "defect" refers to any design or manufacturing fault that renders the unit, component, or part unsuitable for the purpose for which it was designed.

Units and components replaced or repaired under any of these warranties are subject to the remaining term of such warranty. However, components replaced or repaired under a warranty within ninety (90) days of its expiration are warranted for ninety (90) days, excluding those replaced or repaired under the warranty provided in subparagraph (iii) within sixty (60) days of its expiration, which shall be warranted for sixty (60) days.

A five (5) year warranty on components added to a unit and on components not replaced under a warranty provided for above from the time of addition or replacement.

If a unit was repaired four (4) times for the same defect or has been out of service for a period of sixty (60) consecutive or non-consecutive days within one (1) year of delivery, the insured person may request a replacement at no charge.

This period begins on the first day on which the unit is out of service. A repair carried out within one day, regardless of its duration, counts as one day. However, **ORTHOFAB** shall not be responsible for delays caused by the lack of availability of the user or the establishment to perform the repair.

A device is considered unserviceable when it cannot perform the functions for which it was designed.

The parts used to repair a unit or component are covered by the remaining warranty of that unit or component.

Replacements and repairs during the warranty period shall be made with original parts and components.

ORTHOFAB will repair or replace any defective part if it is returned carefully packaged to prevent further damage and sent (postage prepaid) to an authorized **ORTHOFAB** distributor during the warranty period.

This warranty does not cover mechanical parts or components damaged by abuse, neglect, accident, normal wear and tear or installation not authorized by **ORTHOFAB**.

This is provided in lieu of any other written, implied, or statutory warranty. **ORTHOFAB**'s liability is limited to the repair or replacement of any part or component as set forth above.





Exclusions and limitations

The above warranty does not apply to products that have been subject to negligence or accident, faulty use, maintenance or storage, or improper use or service. Furthermore, it does not apply to products damaged because of repair or modification without written consent from **ORTHOFAB**, nor to repairs and modifications not performed by an authorized **ORTHOFAB** distributor.

The warranty shall be limited to the repair and, at **ORTHOFAB**'s absolute discretion, the replacement of defective material as provided herein. Except for the warranties set forth herein, **ORTHOFAB** makes no express or implied warranty, statutory or contractual, including for latent defect, nor any implied warranty of merchantability or fitness for a particular purpose relating to its products, except as otherwise provided herein.

The express warranty set forth above is in lieu of any liability or obligation of **ORTHOFAB** for damages arising out of or relating to **ORTHOFAB** products.

In no event shall **ORTHOFAB** be liable for any special, indirect, or consequential damages, whether in contract, tort or otherwise, even if **ORTHOFAB** has been advised of the likelihood of such damages. The distributor's warranty shall be expressly limited to the repair and replacement of non-conforming products as provided herein, or the refund of any amount not exceeding the purchase price of the material involved.

The conditions in Section 8 constitute the complete and exclusive warranty statement applicable to **ORTHOFAB** products and shall supersede any prior proposal or agreement, oral or written, and any other communication between **ORTHOFAB** and a particular distributor regarding the **ORTHOFAB** warranty.

ORTHOFAB shall not assume any risk for damage incurred during transport.

NOTES:

- Any components exchanged under this warranty shall be covered by the original warranty.
- If a component is returned under this warranty, but considered by **ORTHOFAB** as functional, the component will be returned to the customer.



AUTHORIZED CENTRES

Technical Aids Services

CIUSSS du Bas-Saint-Laurent 800, avenue Sanatorium Mont-Joli (Québec) G5H 3L6

CIUSSS du Saguenay-Lac-Saint-Jean 2230, rue de l'Hôpital Jonquière (Québec) G7X 7X2

CIUSSS de la Capitale-Nationale 525, boulevard Wilfrid-Hamel Est Québec (Québec) G1M 2S8

CIUSSS de la Mauricie-et-Centre-du-Québec 3470, rue Sainte-Marguerite, pavillon G

Trois-Rivières (Québec) G8Z 1X3

CIUSSS de l'Estrie 300, rue King Est, bureau 200 Sherbrooke (Québec) J1G 1B1

CIUSSS du Centre-Sud-de-l'Île-de-Montréal

Centre de réadaptation Lucie-Bruneau 2305, avenue Laurier Est Montréal (Québec) H2H 1C5

CIUSSS du Centre-Sud-de-l'Île-de-Montréal

Institut de réadaptation Gingras-Lindsay de Montréal 6300, rue Darlington Montréal (Québec) H3S 2J4

CIUSSS du Centre-Ouest-de-l'Île de Montréal

CRDP Constance-Lethbridge 7005, boulevard de Maisonneuve Ouest Montréal (Québec) H4B 1T3

CHU Sainte-Justine

Centre de réadaptation Marie-Enfant 5200, rue Bélanger Est Montréal (Québec) H1T 1C9

CIUSSS du Centre-Ouest-de-l'Île de Montréal

Centre de réadaptation MAB Mackay 3500, boulevard Décarie Montréal (Québec) H4A 3J5

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3470, rue Sainte-Marguerite, pavillon G Trois-Rivières (Québec) G8Z 1X3

300, rue King Est, porte 18-B Sherbrooke (Québec) J1G 1B1

2305, avenue Laurier Est Montréal (Québec) H2H 1C5

6300, rue Darlington Montréal (Québec) H3S 2J4

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3500, boulevard Décarie Montréal (Québec) H4A 3J5



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