



USE AND  
MAINTENANCE MANUAL  
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## **SYMBOLS USED**

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Any important information concerning the prevention of damage to the cart or personal injury when using it is highlighted in this manual as follows:



**IMPORTANT:** Incorrectly performing the indicated procedures may damage the cart. The above symbol always precedes the respective message.

# 1 INTRODUCTION

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## 1.1 \_ GENERAL REMARKS

This Use and Maintenance Manual contains all the instructions and information necessary for the safe operation and maintenance of the cart manufactured by Karrel S.r.l.

This manual has been compiled as a definitive source of information for all persons using the cart concerning:

- its features;
- its safe operation;
- maintenance.

The Use and Maintenance Manual is provided by the manufacturer to enable the operator to use the cart in conditions of complete personal safety and without risk of damaging the cart itself.

All the aforementioned information is contained:

- in the 'Use and Maintenance Manual' provided for use by the operator.



**IMPORTANT:** The technical data and images published herein are the sole property of Karrel S.r.l.. Unauthorised copying or dissemination of the contents of this manual to third parties, in full or in part, are prohibited. All copyright infringement will be prosecuted.

This Use and Maintenance Manual' (henceforth, 'the Manual') is intended for all persons, whatever their role or function, using the cart.

All operators and maintenance personnel must therefore read this manual thoroughly and ensure compliance with the instructions and safety guidelines given herein.

Should any part of this manual be unclear, contact Karrel S.r.l. technical support service. The Karrel technical staff will be happy to be of assistance.

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To contact the technical support centre:

**CENTRO ASSISTENZA TECNICA KARREL S.r.l.**

Via A. Vivaldi, 16/18

42043 Gattatico (RE) - Italy

Tel. +39/0522/477.211 - Fax +39/0522/477.225 - E-mail: karrel@karrel.it

This manual is an integral part of the cart and must be kept for future reference until the cart itself is scrapped. We recommend making a copy of this manual for use by the operator and keeping the original in a dry, safe place within access of all personnel who may use the cart. Should this manual be lost, contact the Karrel S.r.l. technical support service and request a new copy.

The cart must be used in a corrosive-free environment.



**IMPORTANT:** Karrel S.r.l. may not be held responsible in the event of damage, injury or any other problems caused by failure to comply with the indications contained in this manual. The same applies in the event of any modifications or alterations made and/or accessories installed without prior authorisation.

The instructions given in this manual supplement and do not substitute the prescriptions of applicable safety and accident prevention legislation.

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## 1.2 \_ GENERAL SAFETY GUIDELINES

In addition to the guidelines described as follows, the person responsible for the cart must also ensure compliance with all applicable legislation regarding health and safety in the workplace.

Always comply with applicable safety legislation and the instructions given in this manual.

The manufacturer may not be held responsible in the event of inappropriate use of the equipment.

Transport and unloading must be carried out by specialised and authorized personnel only.



**IMPORTANT:** Keep all unauthorised personnel away from the cart. The use, maintenance and repair of the cart may only be carried out by authorised personnel. The aforementioned personnel must be in a suitable physical and mental condition for the job.



**IMPORTANT:** Whenever the cart is not in use, keep it out of reach of unauthorised persons.

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## **1.3 \_ GENERAL NOTES**

For all maintenance and repair work, employ the services of specialised personnel or contact the Karrel technical support service.

The manufacturer may not be held responsible for any damage or injury occurring in the following instances:

- the cart has been used inappropriately or used by unqualified or inadequately trained persons;
- the cart has been used in contravention with specific national legislation;
- the instructions given in this manual have not been observed;
- the cart has been used in an environment that does not meet the requisites specified by the manufacturer;
- any necessary extraordinary maintenance has not been carried out;
- any part of the cart has been modified without the express written authorisation of the manufacturer;
- non-original replacement parts have been used in the maintenance of the cart;
- the cart has been used in contravention with the instructions given in this manual.

No special professional qualification is necessary in order to operate the cart. However, all operators must read this use and maintenance manual thoroughly.

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## **1.4 \_ OPERATOR INSTRUCTIONS**

Check that the cart is working correctly by testing its functions. Promptly notify your superior and the operator working on the next shift of any malfunctions noted, especially if they concern safety.

Ensure that there are no foreign objects or tools which could damage the cart before carrying out any operation.

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### **1.4.1 \_ MAINTENANCE PERSONNEL INSTRUCTIONS**

All maintenance or repairs must only be carried out by specialised, authorised and adequately trained personnel or by the personnel of the Karrel S.r.l. technical support service.

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### **1.5 \_ INTENDED USE OF KARREL**

Karrel carts are medical products. They are intended for use as devices to support the treatment of patients in operating theatres, ambulances, hospital wards and clinics. They may also be used as devices for the storage and transportation of drugs, medication materials, consumables, specialised medical equipment and medical files. Karrel carts may not be used for any other purpose.

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### **1.6 \_ RESALE OF THE CART**

In the event of resale of the cart, Karrel S.r.l. must be notified of the address of the new owner so that it may provide the new user with any amendments or updates to this manual.

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### **1.7 \_ DECOMMISSIONING AND SCRAPPING THE CART**

Should you no longer intend to use a Karrel cart, it must be decommissioned as follows:

- remove the power supply and any batteries (if installed) and dispose of at an authorised waste collection facility;
- remove all electrical components (if installed) and dispose of in accordance with applicable legislation for the disposal of electrical material;
- break up the remaining structural elements and dispose of at an authorised waste collection facility.



## 2 IDENTIFYING DETAILS OF THE CART AND DECLARATION OF CONFORMITY

### 2.1 \_ IDENTIFYING DETAILS

This manual is applicable to all carts with drawers and/or doors.

Each Karrel cart has a unique **IDENTIFICATION CODE** (mentioned in the quote, the order confirmation and, subsequently, in the waybill and invoice). This code must be indicated in all requests for repairs under guarantee and for replacement parts.

This code is also specified on the cart identification label:

	
<b>Made in ITALY</b> 42043 Gattatico (RE) - ITALY Via A. Vivaldi, 16/18 Tel. +39-0522-477.211 - Fax +39-0522-477.225 E-mail: karrel@karrel.it www.karrel.it	Code: .....

### 2.2 \_ DECLARATION OF CONFORMITY

The undersigned GIACINTO REMIGIO BALDIN, born in Albaredo d'Adige (Verona - Italy) on 19/09/1954 and residing in Via San Francesco 20/11, Sulbiate (Milano - Italy) (tax number BLDGNT54P19A137V), President and Legal Representative of the company KARREL S.r.l., with registered office and administrative headquarter in Via A. Vivaldi, 16/18 Gattatico (Reggio Emilia - Italy) (tax number and VAT registration number 01931070351)

Hereby declares

1. that Karrel carts are manufactured in compliance with UNI standards for the specific type of product and, in particular, are compliant with Section 6 of Decree-Law 626/94 (implementing EEC directives to improve health and safety at the workplace) and subsequent amendments;
2. that all metal parts used have a fire performance rating of class 0 (Section 1 of the Decree of the Home Office dated January 14<sup>th</sup>, 1985);
3. that Karrel carts bear the CE marking in compliance with the "Medical Devices Directive" 93/42/EEC (incorporated into Italian legislation by Decree-Law 46/97); furthermore, as the carts are rated as class 1, only the self-certification by the manufacturer is required.

Sincerely,

KARREL S.R.L.  
IL PRESIDENTE  
BALDIN GIACINTO



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## **2.3 \_ USEFUL ADDRESSES AND INFORMATION**

For any problems arising at any stage in the cart's lifetime, please contact Karrel S.r.l. at the following address:

### **KARREL S.r.l.**

VIA A. VIVALDI, 16/18 - 42043 GATTATICO (RE) - ITALY

Tel. +39/0522/477.211 - Fax +39/0522/477.225 - E-mail: karrel@karrel.it


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## **2.4 \_ REQUESTING TECHNICAL ASSISTANCE**

Should you require one of our employees to inspect the cart or one of our specialised technicians to perform maintenance or repairs on the cart, requests must be submitted to the Karrel S.r.l. technical support centre, which will be happy to be of assistance.

Requests for assistance must be confirmed in writing to Karrel S.r.l., specifying:

- a) The identification CODE of the cart
- b) The relative WAYBILL and/or INVOICE number
- c) The details of the problem.


 **IMPORTANT:** Karrel S.r.l. may not be held responsible in the event of repairs, replacement or maintenance procedures other than those specified herein carried out by non-employees of the Karrel technical support service or by persons and/or dealers without the express authorisation of Karrel.

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## **2.5 \_ REQUESTING REPLACEMENT PARTS**

This manual contains a specific chapter specifying the correct procedure for requesting replacement parts.

This chapter also includes a **“Material request form”** which must be completed in full and sent to Karrel S.r.l.

 **IMPORTANT:** Using non-original replacement parts is not permitted as they may compromise the performance of the cart itself.

## **3 TRANSPORT AND ASSEMBLY**

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Karrel carts are designed and built so that only minimal disassembly is necessary for shipping (whether it be by air, sea, or other). The component parts themselves are all pre-assembled and thus require very simple reassembly.

The component parts of the carts are packed in cardboard boxes or, where possible, stowed within the cart itself. While the boxes used by Karrel S.r.l. have been specially designed to protect the contents during transport and against the weather, they must nonetheless be handled with care.

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### **3.1 \_ AUTHORISED PERSONNEL**


All unloading, handling and lifting of the cart and its component parts must only be carried out by qualified and suitably trained personnel.

All operations must be performed using appropriate equipment (e.g. lift trucks, forklift trucks, etc.) operated by qualified personnel.

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### **3.2 \_ TAKING DELIVERY OF THE CART**

Upon receipt of the cart, check, together with the person delivering it, that the packaging is undamaged and has not been tampered with to steal any of the parts. Check that the delivered material matches the specifications of the order. If any of the boxes appear damaged, open the damaged box or boxes in the presence of the person delivering the cart and check that the cart itself has not been damaged. Note any damage found on the shipping documents and notify Karrel immediately by fax (+39/0522/477225). Even if the boxes do not appear to be damaged, inspect the cart visually for damage within 24 hours from delivery. In the case of visible damage due to shipping, promptly notify the shipping company, the insurance agency and Karrel S.r.l.

 **IMPORTANT:** Karrel S.r.l. may not be held responsible for any damage to the cart and/or personal injury due to unauthorised persons lifting and transporting the cart or failure to comply with the indications contained in this manual.

All personnel must comply with the applicable indications contained in Decree-Law 626/94 and Presidential Decree 547.

## 4 GENERAL OPERATING PRINCIPLES

### 4.1 \_ GENERAL GUIDELINES FOR CORRECTLY OPERATING THE CART

#### 4.1.1 \_ THE BRAKE

Move the cart into the desired position and press the outermost part of the brake as shown in **figure 1**.

Press the (raised) inner part of the brake to release, as shown in **figure 2**.



#### 4.1.2 \_ TIPPABLE DRAWERS

Open tippable drawers with both hands, as shown in **figure 3**, pulling gently until the latch point and taking care not to damage the plastic.



### 4.1.3 \_ PUSHING THE CART

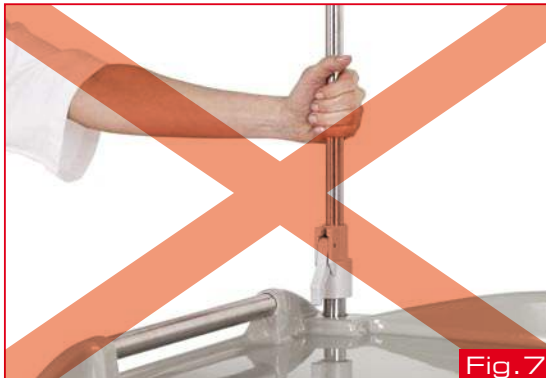
Push the cart as shown in **figures 4 and 5**.



**NEVER** lift the cart as shown in **figure 6**.



**NEVER** pull the cart along by its accessories as shown in **figure 7**.



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#### **4.1.4 \_ INSTALLING OPTIONAL INTERNAL DRAWER DIVIDERS (if supplied)**

The internal drawer partitions are optional accessories and must therefore be specified in the original order. If your cart is supplied with partitions, install as follows.

**STEP 1** - Lay the longer partitions along the bottom of the drawer. Hold a shorter partition in the desired position and raise the longer partition elements, snapping into the shorter element in stages as shown in **figure 8**.



**STEP 2** - Fit the remaining short partition elements in the desired positions as shown in **figure 9**.



#### 4.1.5 \_ PLASTIC DRAWERS (plastic carts only)

The front panels on plastic carts are easily removable for replacement or repositioning. To remove and refit, proceed as follows.

**STEP 1** - Using both index fingers, press the rectangular buttons on the lower edge of the drawer simultaneously and pull the front panel towards yourself **figures 10, 11 and 12**.

**STEP 2** - Ensure that the buttons are still pressed, reposition the front panel on the drawer and press until the fastener snaps into place **figure 13**.



#### 4.1.6 \_ CLEANING THE CART

For daily cleaning, simply clean the components used regularly. Clean the cart with a soft cloth (preferably in microfibre) and a commercially available degreasing and/or disinfecting detergent (**fig. 14**). Do not use any form of alcohol. Use specific, commercially available products for cleaning stainless steel surfaces.



Fig. 14

**!** **IMPORTANT:** If you intend to use **ETHER, ACIDS** or other harsh and/or corrosive substances, we recommend that you also order the **STAINLESS STEEL TOP SURFACE** (optional accessory available for all carts) (**fig. 15**) to protect the plastic top of the unit, which would otherwise be permanently stained by contact with these substances.



Fig. 15



## 4.2 \_ OPENING DRAWERS ON THE CRASH CART (EMERGYKAR carts only)

**STEP 1** - Break the seals by hooking your thumbs into the seals themselves and pulling firmly (**as shown in figure 16**).

**STEP 2** - Lift the levers with your middle and/or ring finger, grip the defibrillator paddle with the thumb and forefinger of each hand and pull towards yourself (**as shown in figure 17**).

**STEP 3** - Grip the cardiac CPR massage board firmly by the appropriate handle (**figure 18**).


**STEP 4** - Lift the cardiac CPR massage board slightly and remove it from the cart (**figure 19**).




## **6 MAINTENANCE**

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### **5.1 \_ SAFETY GUIDELINES FOR MAINTENANCE**

 **IMPORTANT:** Never use acids, corrosives or ether-based products to clean the cart.

Clean with commercially available detergents and use appropriate personal protection devices (goggles, gloves, etc.). Periodically check for damage to the cart and replace any damaged components.


 **IMPORTANT:** All repair jobs on the cart must only be carried out by specialised and adequately trained personnel.

## **6 GUARANTEE**

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### **6.1 \_ GUARANTEE VALIDITY**

As standard, Karrel S.r.l carts are guaranteed to be free from defects in materials and workmanship for a period of 24 months. The guarantee is valid from the delivery date of the cart. Any components deemed, in the sole and incontestable judgement of Karrel S.r.l., faulty as a result of defects in materials or workmanship will be replaced free of charge at the user's premises by the nearest service centre.


 **IMPORTANT:** Guarantee claims will only be considered if submitted in writing to the Karrel S.r.l. technical support centre (Fax +39/0522/477 225) and accompanied by a copy of the original **waybill** or **invoice**. Karrel S.r.l. reserves the right to refuse guarantee claims if any of the aforementioned documents are not included with the claim itself.

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### **6.2 \_ ITEMS NOT COVERED BY THE GUARANTEE**

The guarantee does not cover the following:

- Faults or defects (scratches, dents or similar) caused by negligence, tampering, incompetence or repairs carried out by persons without the express authorisation of Karrel S.r.l..
- Damage caused by incorrect manoeuvring or operation by persons unauthorised by Karrel S.r.l. or damage caused by weather or any other unforeseeable factors.
- Maintenance in general.
- Normal wear and tear.

 **IMPORTANT:** Karrel S.r.l. may not be held responsible for any damage to property or personal injury caused directly or indirectly by inobservance of the indications contained in this manual.

## **REPLACEMENT PARTS**

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### **7.1 \_ GENERAL TERMS**

Use only original replacement parts. The use of non-original replacement parts will immediately void the guarantee.

Karrel S.r.l. may not be held liable for repairs to the cart resulting from the use of non-original replacement parts.

Replacing a cart component at the right time means ensuring the optimum performance of the cart itself while also preventing costly damage. We therefore recommend that you adhere to the replacement schedule and do not wait until a part is already worn before replacing it.

Karrel S.r.l. technical personnel will be happy to help resolve any problems you may have concerning the use and maintenance of the cart.

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### **7.2 \_ PARTS SUBJECT TO WEAR**

The following is a list of the components most likely to undergo wear in normal conditions:

- Wheels
- Plastic top surface complete with push handles
- Plastic base
- Drawers
- Drawer front panels (on plastic carts)
- Cart runners (left and right)
- Drawer / door runners (left and right)
- Side tippable drawers (if applicable)
- Grey rubber scuff strips
- Barrel lock with double key
- Retractable shelf (if applicable)

To request a quote for a replacement part, fill in **the following form** completely.

-----  
**REPLACEMENT PART QUOTE  
REQUEST FORM**

**Customer:**.....

Contact Person:.....

Phone:..... Fax:.....

Address:.....

.....n:.....

Town/City:.....Province:.....

**Cart Identification Code:** .....

Reference Waybill or Invoice: .....

DESCRIPTION	QUANTITY