

Hospital grade 19" U-rack cart

EN Directions for use



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2 Introduction

The cart described in this manual has been developed for setting up a mobile platform with 19" u-rack components, where also additional accessories, like monitor arms, can be added. The cart is developed to create a medical grade platform and can be equipped with aa isolation transformer to meet the electrical requirements of the 60601-1 standard

2.1 Bookmark

Important! Read these directions for use before you use or move the cart. Take the directions for safety (chapter 3) especially into consideration. Do not work on the cart if you do not possess the necessary knowledge, or if you are not authorised to do so.

Jansen Medicars cannot be held responsible for damage, consequential damages and injuries caused by incorrect use/treatment or by negligent maintenance.

3 General safety rules

This chapter contains important safety rules for working with the Hospital grade 19" U-rack cart.

Important! Read these safety rules in its entirety before you start using, installing, cleaning, maintain or moving the cart.

Take the following into consideration:



DO NOT REMOVE TRADE, WARNING OR SAFETY LABELS/STICKERS. WARRANTY VOID IF LABELS/STICKERS ARE MISSING



The cart is for INDOOR use only



Although the cart is mend to setup a hospital grade system, the final configuration has to be tested before use, to make sure it complies to all laws, standards and regulations.



The cart is built in accordance with the latest state of technology and conforms to all the statutory safety stipulations. Nevertheless, the use of this cart could cause injury to the user or a third party, or damage the cart or other goods. Only use the cart in a technically correct condition that corresponds to the stated application and in the environment for which the cart was made, taking into account the instructions and instructions in the user manual.

Before you move the cart



Before moving the cart, switch off the central power switch and unplug the mains socket. Make sure the mains cable (and other cables) is secured on the cart before moving the cart.



Keep the doors closed during use to protect the equipment and to make sure

- the airflow is controlled for internal cooling and
- to prevent the influence of sterile air flows (planum)

ALWAYS POINT THE PERFORATED DOOR AWAY FROM THE STERILE FIELD.



If the cart is equipped with an arm on which a monitor is mounted, the arm should be moved completely downwards and locked before the cart is moved. This is necessary for the stability of the cart while the cart is moving.



Ensure that objects being transported on the cart are attached properly. This prevents objects falling off the cart while it is moving.



Before moving the cart, check that the brakes on both wheels are off.



Check before and while moving the cart that persons or objects cannot become trapped by the cart.



The cart must be **PUSHED**. You then have maximum control of the cart and you will have a good view of the cart and the route that you are taking. **NEVER PULL THE CART.**



Adjust your speed to the immediate circumstances. The cart should never travel faster than 2km/hour (1.24 mph) so that control is maintained during unexpected situations. Moving at a normal walking pace (4 to 5km/hour or 2,5 to 3 mph) is too fast.



Do not drive the cart over inclines and obstacles such as cables and thresholds (elevator entrance). If this is necessary, do it slowly and with a minimum of two persons.



Be aware: a heavily loaded cart always has a certain brake path. Take this into account!



If you plan to move backwards, watch out that you do not become trapped between the cart and obstacles.

Usage of the cart



The equipment on and inside the cart needs electricity to be able to function. In most cases the cart is equipped with a 5 metre mains cable for this. Do not lay the mains cable over pathways, and prevent persons from tripping over the cable.



If the cart is equipped with an arm to which a monitor is attached, make sure that when moving the monitor, the arm does not hit any objects or persons.



NEVER PULL OR PUSH THE ARM TO MOVE THE CART!

WHEN POSITIONING THE ARM, DO NOT PULL THE ARM INTO POSITION, BUT ROTATE THE PIVOT POINTS INDIVIDUALLY!



For stability reasons the castors of the cart are placed a bit outside the cart body. Be aware of the trip hazard.



If any component off the cart is missing or damaged, the cart may not be used.

Flexx two manual

Installation, operation and use



The power system is designed to power cart mounted equipment only. Do not connect equipment that is not mounted on the cart into the power system outlets. Do also not connect equipment that is mounted on the cart directly a power source that is not part of the cart.



The optional supplied 5 meter (16,5 feet) long power cord is rated for medical use. Always connect power plug to a medical grade outlet to ensure grounding protection, and always connect the equipotentiality plug to a valid equipotentiality terminal before use.



Inspect the power cord before each use. **DO NOT USE THE CORD IF DAMAGED.**



DO NOT plug more than the specified number of watts into the power strip.



Fully insert the power cord plug into the outlet. **DO NOT** unplug by pulling on cord.



DO NOT remove, bend or modify any metal prongs or pins on the plugs of cord.



DO NOT use excessive force to make connections.



Keep power cord, isolation transformer, power strip and internal power cords away from water or other liquids. **DO NOT PLUG CORD INTO OUTLET IF WET.**



DO NOT OPERATE POWER SYSTEM IF WET.



DO NOT ALLOW THE POWER CORD, ISOLATION TRANSFORMER OR POWER STRIP TO OVERHEAT.



DO NOT OPEN ANY PART OF THE POWER SYSTEM.
Unauthorized personnel opening the power system may cause injury or death.



DO NOT drive, drag or place objects over the power cord. Do not stand or walk on the power cord.



EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE.

Setting up the cart



When the cart is equipped with monitor arms, do not attach monitors and/or accessories to the arms of which the total weight is heavier than indicated on the arm.



When installing cables alongside the monitor arms, store the cables into the cable channels and make sure the cables are long enough to move around the joints. This prevents damage to the cables during use.



Make sure that the cart meets the tip-test requirements as stated in the UL/IEC 60601-1 standard.

Cleaning the cart



First switch off all the equipment on the cart. The mains cable which provides electricity must be removed from the plug point. This prevents you getting an electric shock.



The cart may only be cleaned with a slightly damp cloth with a non-aggressive mild (household) cleaning agent. Do not use abrasive cleaners, solvents, polishers, waxes or steam cleaning tools.

Flexx two manual

Installation, operation and use



Never use aggressive solvents such as alcohol, thinner or salt to clean the cart.



The cart is equipped with an integrated electrical installation. Therefore do not use liquids, this could lead to dangerous situations and breakdowns.

Maintenance



Regularly check that the cart is working properly (before and during use). If you notice irregularities, have them checked by a qualified person.



Technical maintenance must always be carried out by qualified personnel.



The cart must be checked at least twice a year by authorized technical personnel. Important points are: check for wear and tear, check screws and welding

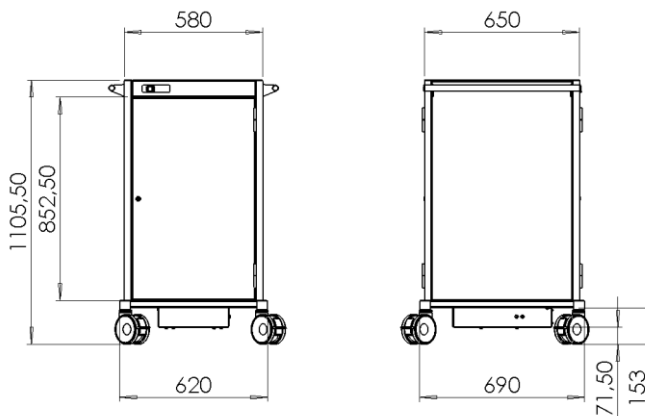
4 The cart explained

A cart is assembled to the customer's specifications. The starting point is the basic cart, as shown below.

This basic cart contains a 18U 19" rack. Mounting sections for the devices are both at the front and rear side.

The cart contains a front and rear door, push bars, an integrated 8-way power strip (C13 outlets) and a central green illuminated power switch. At the rear side a 5-way patch panel is integrated in the worktop.

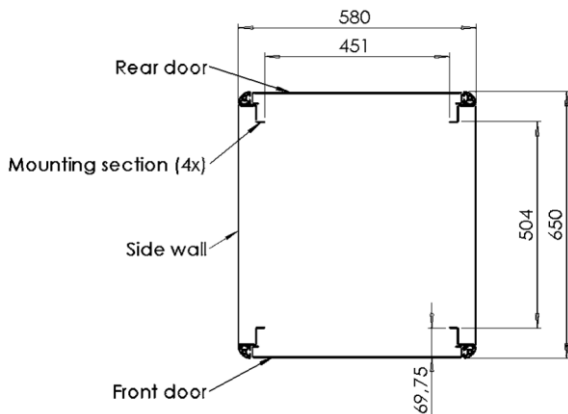
The overall dimensions are shown in the next image:



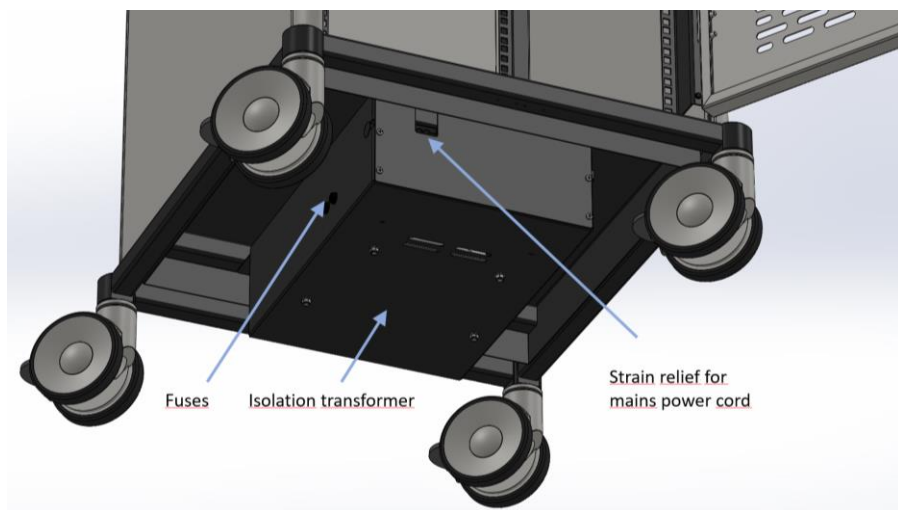
Flexx two manual

Installation, operation and use

Below a top view of the 18U mounting section is shown. The total depth for the 19" devices is 504mm.



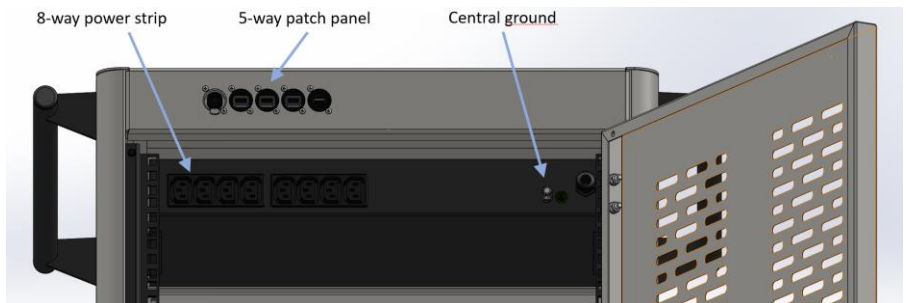
Standard, the cart is equipped with a 1600VA medical isolation transformer. This transformer is attached to the bottom frame of the cart. The central power switch on the front controls the primary side of the transformer.



Replace fuses only with the type specified on the transformer fuse label. For 230VAC this is 8AT 250V.

A standard power cable with a C13 plug can be connected to the transformer. If a power cable is connected, make sure the strain relief is properly attached. Also consider the need of a equipotential lead for your application. A connector for this lead is provided inside the transformer.

The cart is equipped with a 5-way patch panel at the rear side. This patch panel can be configured as required for your application, using standard Neutrik chassis parts.



The power distribution unit is located directly under the worktop and contains 8 C13 outlets.

The total weight of the basic cart without equipment and options is approx.. 92kg

4.1 Options

The 19"U-rack cart can be extended with a mounting pole that can be used to mount accessories. Many accessories are available, like monitor arms, camera holder, gas cylinder holders, cable hooks, etc.



This image is an example of a possible configuration. For more information about the options, please contact Jansen Medinars.

5 Installation

It is very important for durable and safe use that the cart is made ready for use and maintained in the correct way.

The actions described in this chapter must be carried out before the cart can be used.

1. The cart was been designed for setting out medical and/or electronic equipment ready for use.
2. Attaching accessories by purchaser or user, is at their own responsibility.

5.1 Checks

1. Check whether the cart and accessories delivered correspond to your order.
2. Check whether the delivered goods have arrived without damage.
3. Claims must be made within 5 business days after receiving the goods.

5.2 Making the cart ready for use

1. Check whether the wheels are fixed on properly and tighten them if necessary.
2. After all the parts have been fixed in the correct places you should check that all the bolts and adjusting screws have been tightened properly.

3. When using the optional mounting pole, attached accessories can influence the balance negatively and is at your own judgement and responsibility.
4. Setting up the cart for use, will also include the installation of the (electrical) devices on the cart. Make sure they are attached firm and correctly.
5. After installation and functional tests, it is important to check the leakage currents. The leakage current at the input should be $<500\mu\text{A}$. This is defined by the transformer, so this specification will be made when the transformer is functioning correctly. At the secondary side of the transformer, the total leakage current is mainly defined you the connected devices. Make sure the total leakage current is $<5\text{mA}$.

6 Maintenance and inspection

With regard to the safety of the user and his surroundings it is of great importance that the cart is always in a good technical state. After all, a set-up (cart and equipment) is heavy. Unnecessary risks can occur through incorrect use and poor maintenance.

To exclude risks as much as possible, Jansen Medicars advises that the cart should be inspected a minimum of twice a year for defects and loose bolts (castors, trays, monitor arms, etc.). Only authorized technical personnel may execute maintenance to the cart (with reference to the terms and conditions of sales of Jansen Medicars). Never work on the cart when you do not have the required knowledge and competence. If you have a technical service: they must have proper documentation and tools available to perform this maintenance.

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