B BRAUN
SHARING EXPERTISE

Station compact plus

Instructions for use
Version 0.1 English

Digitally signed by Dicusar Vladimir
Date: 2024.08.24 13:03:13 EEST
Reason: MoldSign Signature
Location: Moldova
MOLDOVA EUROPEANĂ

CE

Table of Contents

1 About this document ... 4
1.1 Purpose ... 4
1.2 Scope of application ... 4
1.3 Signs, symbols and tags ... 4
1.4 Warnings ... 5
1.5 Abbreviations ... 5
2 Symbols on the product and packaging ... 6
3 Intended use ... 7
4 Safety instructions ... 8
4.1 General ... 8
4.2 Testing after delivery ... 8
4.3 Software ... 8
4.4 Transport and storage ... 8
4.5 Set-up and start-up ... 9
4.6 Patient safety ... 9
4.7 Operation ... 9
4.8 Safe handling ... 10
4.9 Intended use ... 10
4.10 Accessories and consumables ... 11
4.11 Electrical connection ... 11
4.12 Maintenance ... 11
4.13 Safety standards ... 11
5 Overview of functions ... 12
6 Installation of the Station compact^{plus} ... 13
6.1 Permitted station combinations ... 13
6.2 Mounting on an infusion stand or a vertical tube ... 13
6.2.1 Mounting a Station compact^{plus} ... 14
6.2.2 Disassembling a Station compact^{plus} ... 14
6.3 Locking mechanism ... 15
6.3.1 Assembly and disassembly of the Cover compact^{plus} ... 15
6.4 Assembly and disassembly of a pillar ... 16
6.5 Connection to the mains power supply ... 17
6.6 Universal clamp station ... 18
6.6.1 Assembly and disassembly of the universal clamp on the Station compact^{plus} ... 18
6.6.2 Assembly of the Station compact^{plus} to a stand or a wall rail. ... 18
7 Operating the Station compact^{plus} ... 20
7.1 Explanation of symbols and status displays ... 20
7.2 Inserting a pump ... 21
7.3 Removing a pump ... 22
8 Cleaning and maintenance ... 23
8.1 Cleaning the device ... 23
8.2 Maintenance of the device ... 23
8.3 Recycling the device ... 23
9 Annex ... 24
9.1 Technical data ... 24
9.1.1 Station compact^{plus} and accessories ... 24
9.1.2 Cover compact^{plus} ... 25
9.1.3 Possible configurations with dimensions ... 25
9.2 Notes and manufacturer's declaration on electromagnetic compatibility ... 27
9.2.1 Guidelines and manufacturer's declaration - Electromagnetic emissions ... 27
9.2.2 Recommended safe distances between portable and mobile HF telecommunications equipment and the Station compact^{plus} system. ... 30
9.3 Ordering data ... 31
9.3.1 compact^{plus} product family ... 31
9.3.2 compact^{plus} accessories ... 31
Index ... 32

1 About this document

1.1 Purpose

These instructions for use are part of the device and describe how to use the device safely and correctly.

- Read these instructions for use before using this device.
- Keep these instructions for use available near the device.
- Read and follow other applicable documents.

1.2 Scope of application

The Station compact^{plus} is intended for use in a clinical and/or hospital environment. It is not suitable for use in ambulances or during air transportation.

1.3 Signs, symbols and tags

Symbol	Meaning
•	Prerequisite
•	Handling step: Follow the specified instruction.
	Warning symbol, introduces a warning.
Note:	Information to clarify or optimise work processes

About this document

1.4 Warnings

Symbol	Meaning
 DANGER	Danger for people. Non-compliance will lead to death or serious injuries.
 WARNING	Danger for people. Non-compliance could lead to death or serious injuries.
CAUTION	Risk of damage or incorrect operation. Non-compliance could lead to material damage to the device or to incorrect operation.

1.5 Abbreviations

Abbreviation	Meaning
EMC	Electromagnetic compatibility
LED	Light emitting diode
ESD	Electrostatic discharge
HF	High frequency

2 Symbols on the product and packaging

Symbol	Meaning
	See instruction for use
	Mandatory action: see instruction for use.
	Labelling of electric and electronic devices according to directive 2012/19/EC (WEEE)
	CE marking as per Directive 93/42/EEC
	Alternating current
	Central earthing point
	Catalogue number
	Batch number
	Serial number
	Date of manufacture (year-month-day)
	Manufactured by

Symbol	Meaning
	Moisture limit
	Temperature limit
	Limitation of the atmospheric pressure
	Not MRI safe
	Power supply switched on at the pump slot

3 Intended use

The Station compact^{plus} is designed for the connection of a maximum three compact^{plus} pumps (i.e. Infusomat compact^{plus} and/or Perfusor compact^{plus}).
Individual stations can be assembled to form one or two separate pillars. Each individual pillar requires its own mains connection.
The pillars can be connected using separately available accessories. The maximum number of stations in a pillar is 4. A max. of 2 pillars may be connected in parallel.

The maximum pump slot capacity is 18 slots per patient bed. In order to ensure safe and complete system functionality, each pillar must be completed with a Cover compact^{plus}. The system must only be used by trained medical personnel or technicians.
The Station compact^{plus} is intended for use in a clinical and/or hospital environment. It is not suitable for use in ambulances or during air transportation. The use of the Station compact^{plus} is dependent on the climatic conditions specified in the technical data. The storage conditions are also detailed in the technical data.

4 Safety instructions

- Read the safety instructions before using the device and observe them.

4.1 General

- These instructions for use are part of the Station compact^{plus} system and are a prerequisite for correct use.
- The instructions for use should be kept available near the Station compact^{plus} system at all times.
- Only use the Station compact^{plus} system if you have received training on its use and are familiar with it.
- If the device is dropped or subjected to external forces: stop using the device and have it tested by an authorised service workshop.
- Protect the device against moisture.
- Ensure that the electrical connections are undamaged and dry.
- No pumps other than the Perfusor and Infusomat compact^{plus} pumps may be used with the station. Devices from other B. Braun pump generations or from other manufacturers may not be used.

4.2 Testing after delivery

Check the delivery. Transport damage may occur even if the device has been carefully packaged.

Therefore: check that the device is complete and undamaged immediately after unpacking it. Do not use damaged devices or cables! Inform the service department.

4.3 Software

- Users are instructed to find out about the most recent changes to the device and its accessories after each software update.
- The service tool can be used to find out which software version is installed.

4.4 Transport and storage

- A Station compact^{plus} must only be transported either packaged or mounted on a mobile infusion stand.
- Devices stored in temperature ranges below the defined operating conditions must be kept at room temperature for at least one hour before being powered on.

Safety instructions

4.5 Set-up and start-up

- A Cover compact^{plus} must always be correctly fitted to the top station of a pillar or to an independent Station compact^{plus}. The Cover compact^{plus} protects the top connections against moisture, dirt and damage, and ensures correct system functionality.
- Pump and Station compact^{plus} mains connections must be kept dry and free of particles if a pump is used.
- Regularly checks must be carried out to ensure that the station has been correctly attached if the station is fixed to an infusion stand or a wall rail.
- Disconnect any Station compact^{plus} system mains connections during assembly and disassembly work, or when adjusting the configuration (not necessary when adding or removing infusion pumps).

⚠ WARNING! If the ⚠ LED lights up even though no pump is connected, the Station compact^{plus} is defective and must be taken out of service.

- **Caution:** Defective devices must be disconnected from the mains immediately, removed from service and inspected by service personnel.
- The permitted number of stations within a pillar must not be exceeded (see section 6.1).
- The permitted number of connected pillars must not be exceeded (see section 6.1).
- Each Station compact^{plus} in a pillar must be individually fixed in place.
- Prevent infusion stands from rolling away on flat surfaces using the locking devices. Additional safeguards are required for floor gradients of more than 5°.
- Check that the pumps used are correctly secured by the locking mechanism.
- The pump is only correctly locked when the user hears a clearly audible click generated by the shutting of the locking mechanism.
- External surfaces must be disinfected when the device is to be used for a new patient.

4.6 Patient safety

- The user must be certain of the Station compact^{plus} system's functional reliability and that it is in good condition before using the system.
- Function checks and safety checks must be performed separately for all additionally connected devices.
- Check and establish mains connections and plug connections. Observe the voltage information on the rating plate! (See section 9.1)

4.7 Operation

- Carefully read the instructions for use for the pump used.

Safety instructions

4.8 Safe handling

- All cable connections and pumps must be disconnected before cleaning/ disinfection.
- Make sure that the introductory training on the device is given by a B. Braun sales representative or another authorised person.
- Ensure that the device is properly positioned and secured, and that it is level.
- Before inserting a pump, the locking mechanism on the pump as well as the locking mechanism on the Station compact^{plus} slot must be checked for damage.
- Make sure that both status LEDs light up during the self-test (see section 7).
- Avoid mechanical effects on the device.
- The pump is been correctly mounted in the slot when a click is heard when the pump is inserted.
- Only connect a pillar to infusion stands or vertical tubes with a uniform diameter.
- Only connect the power cable once the system has been set-up.
- Do not operate the device near inflammable anaesthetics.

4.9 Intended use

- The modular Station compact^{plus} system is intended for the treatment of a single patient.
- The Station compact^{plus} system is used in a clinical and/or hospital environment. It must be operated by doctors and medically trained personnel.
- If the pumps in the Station compact^{plus} system are switched off, the monitoring systems are not active. Therefore: close the roller clamp or multidirectional stopcock at the connection to prevent undetected backflow.
- All configurations must comply with system standard IEC 60601-1.
- The user must ensure that the pump and the other system components have been correctly locked in.
- There should be no disposable items in the pump docking area.
- Ensure that the pumps are correctly inserted and removed.
- Do not position the device above the patient or any other person.
- The Station compact^{plus} must only be attached to round materials with diameters of 13 mm to 40 mm if it is attached using the pole clamp.
- The Station compact^{plus} is correctly fastened when the station has been stably attached to the infusion stand and a click was heard from the knob for the pole clamp.
- Before mounting the Station compact^{plus} on an infusion stand or vertical tube, the infusion stand or vertical tube must be cleaned of any contamination.
- Only for use with:
  - Perfusor® compact^{plus}
  - Infusomat® compact^{plus}
  - Data module compact^{plus}

Safety instructions

4.10 Accessories and consumables

- Only original replacements parts may be used.
- Only use accessories and replacement parts whose compatibility is guaranteed.
- Functional reliability is only guaranteed if accessories that have been tested and/or approved, and therefore recommended by the manufacturer B. Braun Melsungen AG, are used.

4.11 Electrical connection

- Do not use the device if the plug has visible damage.
- Do not use the device on patients if a service cable is connected to the accessory plug.
- The power and connection cables must be positioned so as not to present a trip hazard or hinder work with the Station compact^{plus} system.
- Position the power cable so that it does not present a trip hazard.

⚠ **WARNING! Risk of death from electric shock**

- Only use small quantities of cleaning fluids to clean the electrical plugs.

⚠ **WARNING! Risk of death from electric shock.**

- To prevent the risk of an electric shock, this device must only be connected to a mains power supply with a protective conductor and a residual current operated circuit breaker.

4.12 Maintenance

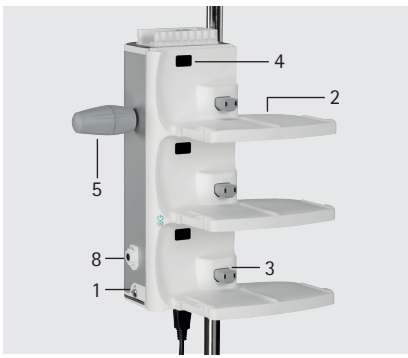
- Servicing and maintenance must only be performed by trained and qualified service personnel.

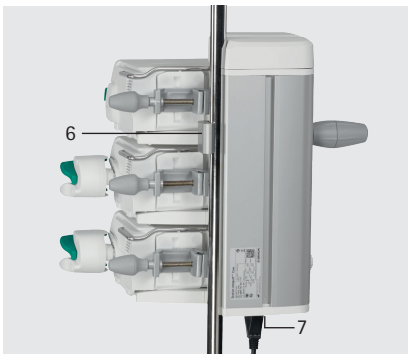
4.13 Safety standards

- The device meets all safety standards for medical electrical equipment in compliance with IEC 60601-1 and IEC 60601-2-24.
- It complies with the EMC threshold limits as specified in IEC 60601-1-2 and IEC 60601-2-24.

5 Overview of functions

A maximum of three pumps per station can be connected with one another and supplied with mains voltage with the Station compact^{plus}.





No.	Name
1	Locking mechanism
2	Slot for individual pumps
3	Power supply at the pump slot
4	Infrared interface for data transmission
5	Locking device for pole clamp
6	Pole clamp for infusion stands
7	Connection for power cable
8	Accessory port for staff call or pillar connection (internal communication within the workplace)

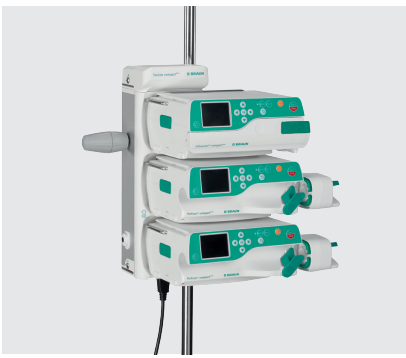
6 Installation of the Station compact^{plus}

- Pumps removed
- Power cable disconnected

6.1 Permitted station combinations

The individual stations can be joined together to create a pillar (see section 6.4).

CAUTION! A pillar may consist of a max. of 4 stations. Each pillar must be closed with a Cover compact^{plus}.
A max. of 2 pillars may be connected using one connecting cable. In the case of four stations and operation at mains voltages above 200 V and 60 Hz, the fourth station must be connected to the mains power supply's protective conductor potential through an additional permanently connected protective conductor (art. no.: 8717144).



6.2 Mounting on an infusion stand or a vertical tube

In order to mount the Station compact^{plus} on an infusion stand or tube, open the pole clamp until it fits the tube or the infusion stand.

Ensure that no pumps are docked when fastening a Station compact^{plus}. Now close the pole clamp by turning the knob in a clockwise direction. Turn it until the Station compact^{plus} is firmly attached to the infusion stand or tube and a click is heard.
The Station compact^{plus} is then securely attached to the infusion stand or tube.

When disassembling the device, support the device underneath with one hand and, with the other, turn the handle on the pole clamp anti-clockwise until the Station compact^{plus} can be removed.

⚠ **WARNING! Risk of injury from non-compliance.**

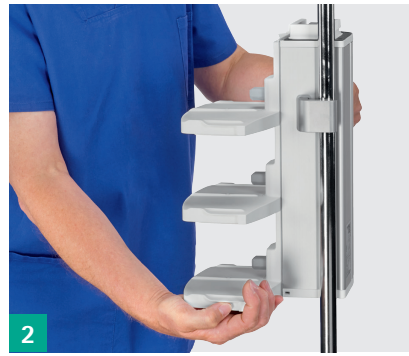
Installation of the Station compact^{plus}

- If the Station compact^{plus} slides down the infusion stand, the infusion stand or the vertical tube requires cleaning.

CAUTION! A Station compact^{plus} must only be mounted on an infusion stand or a tube with a diameter between 13 mm and 40 mm.

6.2.1 Mounting a Station compact^{plus}

1 | Position the Station compact^{plus} on an infusion stand or vertical tube.
2 | Ensure that the Station compact^{plus} is in the correct position on the infusion stand/vertical tube.
3 | Turn the knob clockwise until you hear a loud click.



6.2.2 Disassembling a Station compact^{plus}

1 | Turn the pole clamp anti-clockwise to remove it.
2 | Remove the Station compact^{plus}.

Note: Support the station from underneath with one hand during this process.

Installation of the Station compact^{plus}

6.3 Locking mechanism

The Cover compact^{plus} and the Station compact^{plus} are fixed in place/released using the locking mechanism. The locking mechanism can be turned with a coin or a flat-head screwdriver.

Symbol	Explanation
	The locking device is opened and the Cover/ Station compact^{plus} can be removed. Another segment can be inserted.
	The locking device is closed, the Cover/ Station compact^{plus} fixed is fixed in place. The red marking is no longer visible.

CAUTION! The Cover compact^{plus} is only correctly locked when the red marking is no longer visible.

Station compact^{plus} cover

The Cover compact^{plus} protects the top connections against moisture and damage, and ensures correct system functionality.

6.3.1 Assembly and disassembly of the Cover compact^{plus}

The Cover compact^{plus} is connected to the Station compact^{plus} and fixed in place by the locking mechanism. To disassemble the Cover compact^{plus}, the locking mechanism must be turned until the red marking is visible. The slot on the screw should point to the opened lock symbol (see section 6.3).

1 | Fitting/positioning
2 | Locking the cover.

Installation of the Station compact^{plus}

WARNING! Danger from damaged connections.

- Each Station compact^{plus} or pillar comprising several stations must be protected with a Cover compact^{plus} (locked) to prevent damage.

6.4 Assembly and disassembly of a pillar

Ensure that no pumps are docked when assembling a Station compact^{plus}. The first Station compact^{plus} in a pillar must be assembled without a cover at the assembly site using a pole clamp. The next Station compact^{plus} in a pillar is then docked onto the previously fixed station and the two are properly connected to one another using the locking mechanism (see section 6.3). Each Station compact^{plus} in a pillar must be fastened using a pole clamp. The top Station compact^{plus} in a pillar must be protected with a Cover compact^{plus}.

When disassembling a pillar, always start with the top Station compact ^{plus}. Ensure that no pumps are docked when disassembling a Station compact^{plus}. The locking system between the two stations must be open when dissembling a pillar. The pole clamp may then be opened and the Station compact^{plus} removed from the pillar.

Note: The Station compact^{plus} that completes the pillar must be fitted with a Cover compact^{plus}.

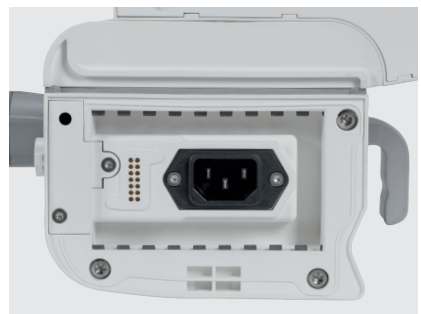
CAUTION! If you intend to combine two or three Station compact^{plus} in a pillar, then only connect the second and third Station compact^{plus} once you have fixed the first Station compact^{plus} in place.

CAUTION! The pillars may only be connected to an infusion stand or vertical tube.

- Station compact^{plus} fixed on an infusion stand or vertical tube (see section 6.2.1):
  1 | Fitting/positioning of an additional Station compact^{plus}.
  2 | Check that the two stations are correctly stacked.
  3 | Lock the stations to one another
  4 | Attachment of the top Station compact^{plus} to the infusion stand.

Installation of the Station compact^{plus}

6.5 Connection to the mains power supply



DANGER! Risk of death from electric shock.

- The device must only be connected to a mains power supply with a protective conductor and a residual current operated circuit breaker.
- Connect the power cable with mains connection to the device.
- Position the power cable so that it does not present a trip hazard.
- Plug the power plug into the socket.

Installation of the Station compact^{plus}

6.6 Universal clamp station

To mount the Station compact^{plus} on a rail system for supporting medical equipment as per DIN EN ISO 19054 (25 – 35 x 12 mm) or for attachment to a fixation system with vertical support poles, the Universal Station Clamp (article number 8717142) can be attached to the back of the Station compact^{plus}.

6.6.1 Assembly and disassembly of the universal clamp on the Station compact^{plus}

Assembly of the universal clamp

- Slide two T-slot nuts into the slot on the back of the Station compact^{plus} and pre-position them.

Note: The position of the adapter plate can be varied depending on the installation position.

- Fix the universal clamp in the correct position using countersunk screws.
- Connect the pole clamp from below up to the stop.

Note: The pole clamp can be inserted into the adapter plate in four orientations depending on the situation.

Disassembly of the universal clamp

- Press the release lever on the adapter plate to hold the pole clamp.
- Remove the pole clamp.

6.6.2 Assembly of the Station compact^{plus} to a stand or a wall rail.

Caution: Pay attention to the rail systems max. load capacity.

- Position the Station compact^{plus} in the holding fixture using a pole clamp and tighten it.
- The ring on the handle can be pulled back for quick adjustment.

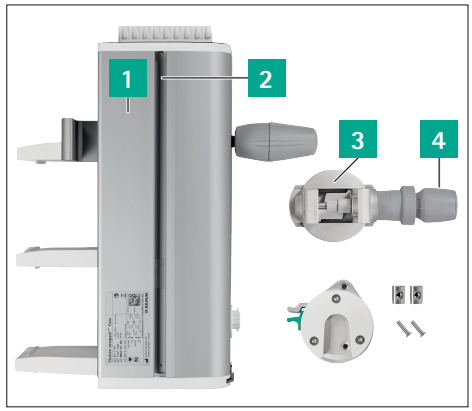
Caution: If a pillar comprising several Station compact^{plus} is to be fixed in place, each individual station must be fixed to an additional rail system using a Universal Station Clamp.

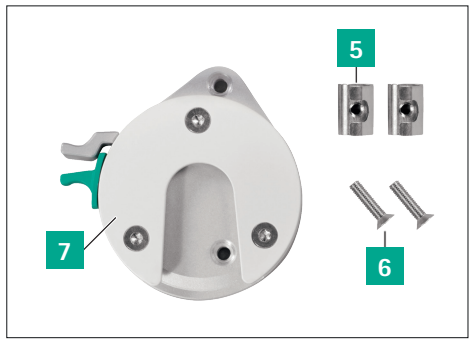
Caution: If a pillar comprising several Station compact^{plus} is to be fixed to a stand, each individual station must be fixed to the stand system using a universal clamp.

Caution: The station must be supported with one hand before the pole clamp is opened during disassembly.

Installation of the Station compact^{plus}

Components:

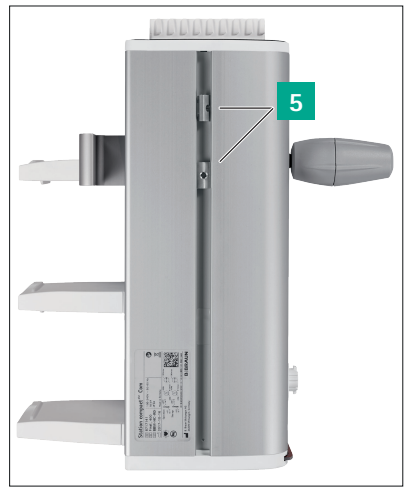




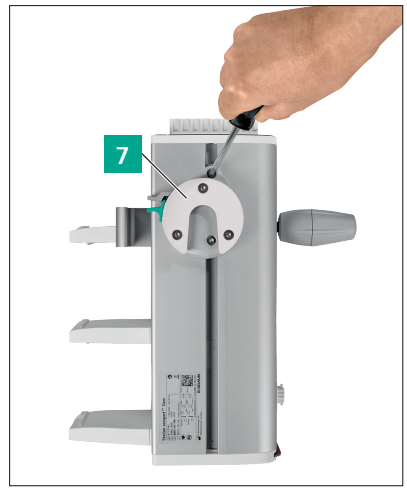
1 | Station compact^{plus}
2 | System groove
3 | Pole clamp
4 | Quick adjustment

5 | T-slot nut
6 | Countersunk screw
7 | Adapter plate

Sliding the T-slot nuts into the system groove:



Fixing the Universal Station Clamp in place:



7 Operating the Station compact^plus

Plug the power cable in to switch on the Station compact^plus.

7.1 Explanation of symbols and status displays

WARNING! If the LED lights up even though no pump is connected, the Station compact^plus is defective and must be taken out of service.

Display	LED status	Meaning
	On	Power supply
	On	In use. No error messages
	On	Start-up
	On	Device error
	Flashing	Operating error
	Flashing	Service
	Alternating flashing	Update
	On	Pump slot power supply switched on

Self-test

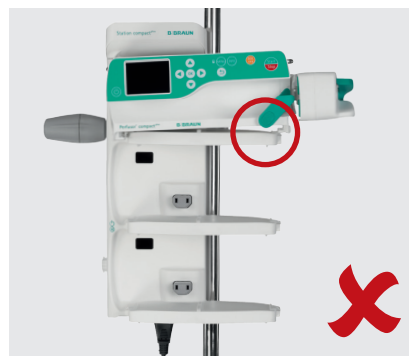
Ensure that both LEDs light up during the self-test and that the yellow LED then turns off.

7.2 Inserting a pump

1 | Positioning of the pump.
2 | Sliding in the pump and clicking it into position.

Note: For it to be possible to slide the pump in, the handle on the pump's pole clamp must point to the right.

To insert a pump into a Station compact^plus, position the pump above one of the slots and slide the pump in the direction of the plug connection on the back until you hear the locking mechanism on the side lock in place.



⚠ WARNING! When inserting a pump, ensure that the pump's guide rails engage correctly in the slot.

7.3 Removing a pump

1 | Release by pressing the green button on the side.
2 | Removal of the pump.

To remove a pump from the Station compact^plus, press the release button on the side of the pump and pull the pump out.

Note: When using infusion stands, please ensure that they are secured against tipping.

8 Cleaning and maintenance

- Pumps removed
- Power cable disconnected

⚠ **WARNING! Only use small quantities of cleaning fluids to clean the electrical plugs.**

8.1 Cleaning the device

⚠ **WARNING! Risk of death from electric shock.**

- Disconnect the device from the mains power supply before cleaning

Clean the Station compact^{plus} System with mild soap solution.
Do not use spray disinfectant on the mains connection.

CAUTION! Damage to the device

- The Station compact^{plus} system must not be cleaned with cleaning agents that contain chlorine.

Recommendation: Disinfectants for wipe disinfection manufactured by B. Braun (e.g., Meliseptol). Allow the device to air dry for at least 1 min before operation. Do not spray into the openings on the device (openings for power input, interfaces, etc.). Observe all hygiene regulations! Check the plug regularly for contamination (e.g., spilled liquids) and clean as required.

Note: Substances from the groups of disinfectants listed below are permitted, provided the manufacturer's instructions for normal cleaning are followed:

Alcohols	Peroxides
QACs	Aldehydes
Acids	Alkylamines
Phenols	

8.2 Maintenance of the device

Regularly check, clean and disinfect the Station compact^{plus} system. Check that the device is clean, intact and free of damage. Only use original replacement parts and accessories. The safety check of the Station compact^{plus} system must be carried out every 24 months. All additional information, e.g. performance of the safety check, can be found in the service manual for the Station compact^{plus}.

8.3 Recycling the device

On-site disposal according to country-specific regulations. Old devices are taken back by B. Braun for disposal on request.

9 Annex

9.1 Technical data

9.1.1 Station compact^{plus} and accessories

Parameter	Value	
Operating conditions		
Temperature	5 °C ... 40 °C	
Relative air humidity	30 % ... 90 % (without condensation)	
Atmospheric pressure	610 mbar ... 1060 mbar	
Storage conditions		
Temperature	-20 °C ... 55 °C	
Relative air humidity	20 % ... 90 % (without condensation)	
Atmospheric pressure	610 mbar ... 1060 mbar	
Dimensions (W x H x D)	Approx. 310 x 350 x 205 mm	
Weight	Approx. 3.3 kg	
Power supply	Primary: 100 - 240 V ~ 50 - 60 Hz Note: In the case of four stations and a mains voltage above 200 V and 60 Hz, the fourth station must be connected to the mains power supply's protective conductor potential through an additional permanently connected protective conductor (art. no.: 8717144).	
Max. power consumption at	100 V	240 V
1 station with pumps	105 VA	140 VA
2 stations with pumps	210 VA	280 VA
3 stations with pumps	315 VA	420 VA
4 stations with pumps	420 VA	560 VA
4 stations with pumps + data module	455 VA	605 VA
Classification (acc. to IEC 60601-1)	Type CF protection class I	

Annex

Parameter	Value
Class (acc. to Directive 93/42/EEC)	I
Type of protection	IP 34 (protected against dripping and sprayed water)
EMC	IEC 60601-1:2005 + A1:2012 General collateral standard for medical devices IEC 60601-1-2:2007 collateral standard for EMC IEC 60601-1-2:2014 consulted partly for testing of RF-fields produced by RF wireless communication equipment IEC 60601-2-24:2012 particular standard for infusion pumps
Interfaces	Cold connector for mains voltage Accessory port for accessory cable and staff call
Safety check	Every 24 months

9.1.2 Cover compact^{plus}

Parameter	Value
Dimensions (W x H x D)	Approx. 130 x 45 x 125 mm
Weight	Approx. 255 g

9.1.3 Possible configurations with dimensions

System	W [mm] Approx.	H [mm] Approx.	D [mm] Approx.	Weight [kg] Approx.
1x Station compact^{plus} 1x Cover compact^{plus}	310	375	205	3.6
2x Station compact^{plus} 1x Cover compact^{plus}	310	700	205	6.9
3x Station compact^{plus} 1x Cover compact^{plus}	310	1,030	205	10.2

Annex

System	W [mm] Approx.	H [mm] Approx.	D [mm] Approx.	Weight [kg] Approx.
1x Station compact^{plus} 1x Cover compact^{plus} 3x Infusion pump compact^{plus}	510	375	280	10.5
2x Station compact^{plus} 1x Cover compact^{plus} 6x Infusion pump compact^{plus}	510	700	280	20.7
3x Station compact^{plus} 1x Cover compact^{plus} 9x Infusion pump compact^{plus}	510	1,030	280	30.1
1x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus}	320	445	235	4.8
2x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus}	320	770	235	8.1
3x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus}	320	1,100	235	11.4
1x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus} 3x Infusion pump compact^{plus}	510	445	280	11.7
2x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus} 6x Infusion pump compact^{plus}	510	770	280	21.9
3x Station compact^{plus} 1x Cover compact^{plus} 1x Data module compact^{plus} 9x Infusion pump compact^{plus}	510	1,100	280	32.1

Annex

9.2 Notes and manufacturer's declaration on electromagnetic compatibility

9.2.1 Guidelines and manufacturer's declaration – Electromagnetic emissions

The Station compact^{plus} system is designed to be used in the electromagnetic environmental conditions described below. Customers or users of the Station compact^{plus} system or its components should ensure that the system is being operated in such an environment.

Note: The limits for interference emissions are measured with individual components as well as with the maximum set-up (fully equipped Station compact^{plus}).

Emission measurements	Compliance	Electromagnetic environment – Guidelines
HF emission as per CISPR 11	Group 1 / Class B	The Station compact^{plus} system uses HF energy for its internal functions only. As such, its HF emissions rate is very low and it is unlikely to interfere with nearby electronic equipment. Note: The optional WiFi in the data module compact^{plus} (2.4 and 5 GHz/100 mW) can interfere with devices in the vicinity. Please observe the required minimum distances.
Voltage fluctuations / flicker as per IEC 61000-3-3	Conforms	The Station compact^{plus} system and its components are intended for use in all establishments (including residential areas and similar) directly connected to a public power grid that also supplies buildings used for residential purposes.

Annex

Immunity tests	Test level IEC 60601-1-2 IEC 60601-2-24	Compliance level	Electromagnetic environment – Guidelines
Electrostatic discharge (ESD) as per IEC 60601-4-2	**Contact discharge** IEC 60601-1-2: ±6 kV IEC 60601-2-24: ±8 kV **Air discharge** IEC 60601-1-2: ±8 kV IEC 60601-2-24: ±15 kV	±6 kV without interference ±8 kV ±8 kV without interference ±15 kV	Floors should be made of conductive materials. For synthetic material, the relative humidity should be at least 30 %.
Electrical fast transients / bursts according to IEC 60601-4-4	For power cables ±2 kV For input and output cables ±1 kV	±2 kV ±1 kV	The supply voltage quality should be the same as that of a typical commercial or hospital environment.
Surges as per IEC 61000-4-5	Normal mode voltage ±1 kV Common mode voltage ±2 kV	±1 kV ±2 kV	The supply voltage quality should be the same as that of a typical commercial or hospital environment.

Annex

Immunity tests	Test level IEC 60601-1-2 IEC 60601-2-24	Compliance level	Electromagnetic environment - Guidelines
Voltage dips, brief supply voltage interruptions and fluctuations according to IEC 61000-4-11	< 5 % UT for ½ periods (> 95 % dip) 40 % UT for 5 periods (60 % decline) 70 % UT for 25 periods (30 % decline) < 5 % UT for 5 s (> 95 % dip)		Note: UT is the AC mains voltage prior to test level application.
Magnetic field at supply frequency (50/60 Hz) as per IEC 61000-4-8	EN 60601-2-24: 30 A/m	30 A/m	Magnetic fields at the supply frequency should correspond to those typically found in commercial and hospital environments.

Note: The deviating test values derived from IEC 60601-2-24 are labelled in the table. However, these test values allow one outage, while the test values according to IEC 60601-1-2 do not allow any outages.

Note 1: The higher value applies at 80 MHz and 800 MHz.

Note 2: These guidelines may not be applicable in all situations. Electromagnetic wave propagation is affected by the absorptive and reflective qualities of the surrounding structures, objects and people.

Note 3: The test values derived from IEC 60601-2-24 are labelled in the table. However, these test values allow one outage, while the test values according to IEC 60601-1-2 do not allow any outages.

Annex

9.2.2 Recommended safe distances between portable and mobile HF telecommunications equipment and the Station compact^{plus} system.

The Station compact^{plus} system is designed for use in an electromagnetic environment in which emitted HF disturbances are controlled. Customers or users of the Station compact^{plus} system or its components can help prevent electromagnetic interference by complying with the minimum distances between portable and mobile HF telecommunications devices (transmitters) and the Station compact^{plus} and its components, as recommended below in accordance with the maximum output power of the communication device.

Note 1: For transmitters whose rated power is not specified in the table above, the distance can be determined using the equation for the relevant column. P is the transmitter's rated power in W according the manufacturer's specifications.

Note 2: A factor of 10/3 is used to calculate the recommended safe distance of transmitters in the frequency range between 80 MHz and 2.5 GHz, in order to reduce the probability of a mobile communication device used unintentionally in the patient area causing a fault.

Transmitter rated power in W	Safe distance according to transmitter frequency m		
	150 kHz to 80 MHz $1.2\sqrt{P}$	80 MHz to 800 MHz $1.2\sqrt{P}$	800 MHz to 2.5 GHz $2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.27
100	12	12	23

Note 3: These guidelines may not be applicable in all situations. Electromagnetic wave propagation is affected by the absorptive and reflective qualities of the surrounding structures, objects and people.

Note: The device must not be used near a magnetic resonance imaging unit without protection.

Note: In order to meet with the following compliance levels, only original accessories and replacement parts may be used. Otherwise, there may be elevated emissions or reduced device immunity.

Annex

9.3 Ordering data

9.3.1 compact^{plus} product family

Name	Order number
Perfusor® compact^{plus}	8717030
Infusomat® compact^{plus}	8717050
Infusomat® compact^{plus} P	8717070

9.3.2 compact^{plus} accessories

Name	Order number
Station compact^{plus}	8717141
Cover compact^{plus}	8717145
Data module compact^{plus}	8717160
Connecting cable, 60 cm	8718060
Connecting cable, 120 cm	8718061
Connecting cable, 1,000 cm	8718062
Interface cable compact^{plus} Staff call station	8718031
Protective conductor	8717144
Universal clamp station	8717142

Index

A

Abbreviations 5
Accessories 31
Accessories and consumables 11

C

Cleaning and maintenance 23

D

Disassembly 14

E

Electromagnetic compatibility 27

I

Inserting a pump 21
Intended use 7, 10

L

Locking mechanism 15

M

Mains connection 17
Maintenance 11, 23
Mounting on an infusion stand 13

O

Operation 20
Ordering data 31
Overview of functions 12

P

Patient safety 9
Possible configurations 25

R

Recycling 23
Removing a pump 22

S

Safe distances 30
Safe handling 10
Safety instructions 8
Safety standards 11
Scope of application 4
Set-up and start-up 9
Software 8
Stand clamp 12, 13, 16, 21
Start-up 9
Station combinations 13
Station compact^{plus} cover 15
Status displays 20
Symbols 4
Symbols and status displays 20
Symbols on the product and packaging 6

T

Tags 4
Technical data 24
Transport and storage 8

U

Universal Station Clamp 18

W

Warnings 5

Notes

Notes

Manufacturer:
B. Braun Melsungen AG
34209 Melsungen
Germany
Tel +49 (0) 56 61 71-0
www.bbraun.com

Sales:
B. Braun Melsungen AG
Hospital Care division
34209 Melsungen
Germany
Tel: +49 (0) 56 61 71-0
Fax: +49 (0) 56 61 71-20 44
www.bbraun.com

38932501 • Drawing no. I0021700001
2018-03-20 • Information as of: March 2018

Printed on 100 % chlorine-free bleached cellulose