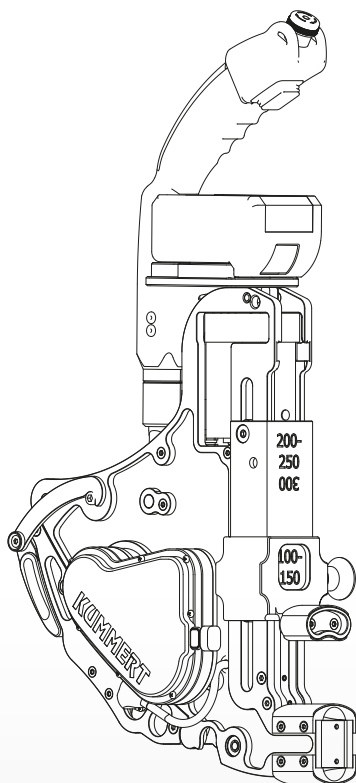


KUMMERT

PUSHBUDDY



INSTRUCTION MANUAL

PushBuddy®

EN

EN

English

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Keep the manual for future reference!

CONTENT

Introduction.....	29
About the manual	29
Explanation of symbols.....	29
Preparation.....	31
Delivery	31
Packaging	31
Storage.....	31
Transport.....	31
Product description	32
Brief descripton of PushBuddy®	32
Specifications	32
Components.....	33
PushBuddy®.....	34
Carrier	35
Extension.....	35
Work prapARATION	36
Transport to place of operation	36
Inserting and removing the battery.....	37
Setting the handle.....	38
Installing an extension.....	39
Removing an extension	40
Connecting PushBuddy® with a base unit.....	40
Setting the pipe diameter	41
Inserting the rod into the PushBuddy®	42
Removing the rod from the PushBuddy®.....	43
Clamping PushBuddy® at the beginning of a pipe.....	44
Adjusting the inspection speed	45
Working with PushBuddy®.....	46
End of Work	46
Cleaning	46
Troubleshooting.....	48
Maintenance.....	49
Disposal.....	50
Notes	51

INTRODUCTION

About the manual

The manual ensures the safe operation of the devices and must be kept in the devices' close proximity, immediately accessible for any personnel.

All personnel are to carefully read and understand this manual before taking up work. As a precondition for safe operation, all safety instructions and operational procedures given in this manual must be observed.

Furthermore, the local accident prevention regulations and general safety provisions applicable for the devices' range of use are to be heeded.

Explanation of symbols

Safety instructions in this manual are indicated by means of symbols. The safety instructions express the extent of the hazard.



WARNING

This combination of symbol and signal word identifies a possibly dangerous situation, which may cause death or severe injuries if not avoided.



CAUTION

This combination of symbol and signal word identifies a possibly dangerous situation, which may cause minor or slight injuries if not avoided.



NOTE

This combination of symbol and signal word identifies a possibly dangerous situation, which may cause damage to property and environment if not avoided.



TIP This symbol highlights useful tips and information for an efficient and trouble-free operation of the device.



WARNING

Risk of injury!

When unwinding and rewinding the rod, injuries can be caused by the turning reel and unintended unwinding of the rod.

- Never reach into the reel basket during operation.
 - Always lock the reel if the rod is not in use.
-



CAUTION

Cable safety!

Cables pose a tripping hazard.

- Lay cables in such a way that nobody can trip over them or place a sign indicating a tripping hazard.
-



WARNING

Risk of injury due to rough surface!

The clamping device is coated with granulate for a better grip, which can cause skin injuries.

- Always wear suitable protective gloves when handling the clamping device.
-



WARNING

Risk of injury by crushing or clamping!

The device has moving components. When adjusting these components, there is a risk of jamming or crushing parts of the body.

- Follow the instructions in this manual carefully.
 - Never reach into the area where the components are moving when adjusting the components.
-



NOTE

Risk of damage to property!

When clamping the PushBuddy®, there will be strong forces applied.

- Before use, check that the pipe can withstand these forces.
-

PREPARATION

Delivery



TIP Claims for damage can only be submitted within the applicable complaint periods, so please inform us of any defects as soon as possible.

The delivery is to be inspected for completeness and possible transport damage immediately upon receipt. Report transport damages to the carrier immediately.

The standard scope of delivery of the PushBuddy® includes:

- PushBuddy®
- Carrier for transportation and securing the PushBuddy® onto a Profi 3+ or a Profi HD
- 2x Extension 1,0 m
- Extension 0,5 m
- Torque wrench
- Holding tool
- Instruction manual

Packaging



TIP Keep the packaging for possible shipping and storage

Packaging may also comprise materials added to the packages for the protection against moisture or frost (e.g. silica gel bags, anti-freezing agents).

Storage

The devices and the accessories must always be stored under the following conditions:

- Do not store outdoors
- Store in a dry and dust-free place

Transport

When transporting the device in vehicles, always comply with the local safety loads regulations. In addition, make sure that the PushBuddy® and its accessories are protected against external forces.

A carrier can be used to transport the PushBuddy® and its accessories to the place of operation. See chapter „Transport to place of operation“.

PRODUCT DESCRIPTION

Brief description of PushBuddy®

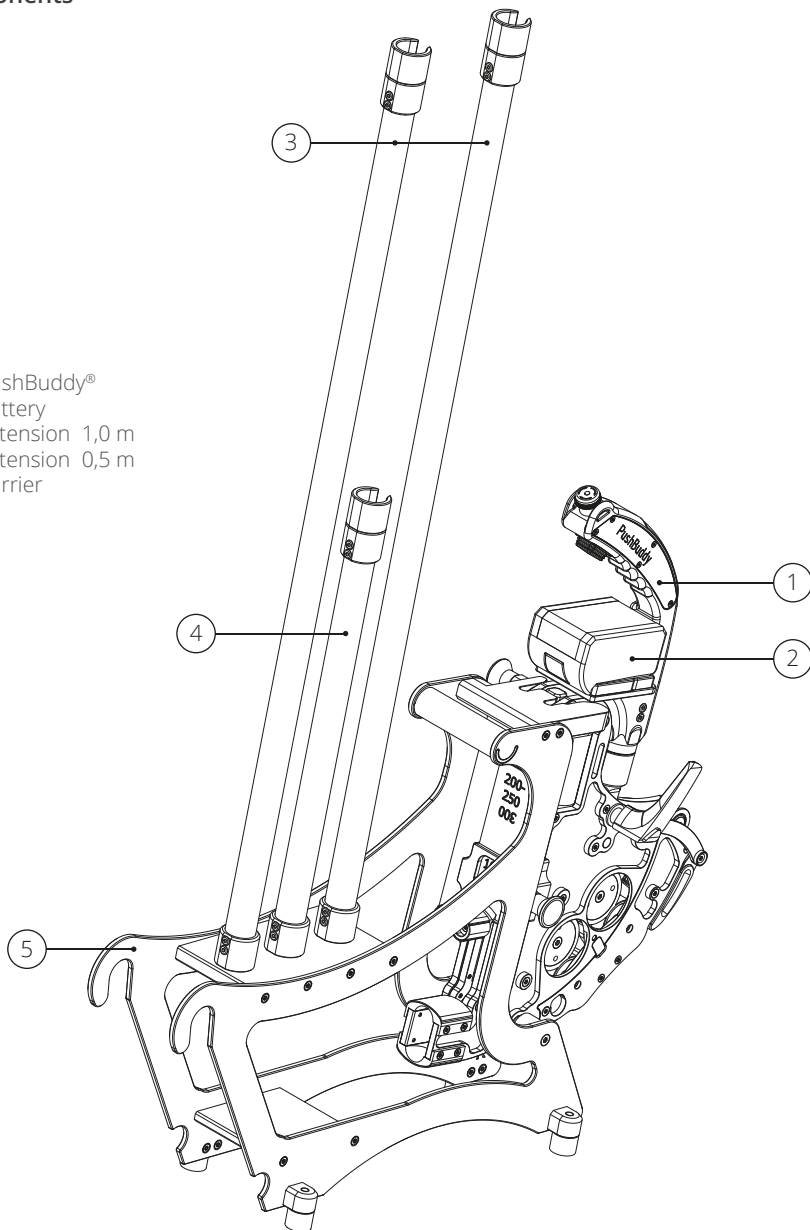
The device is designed for pushing forward HD generation rods (except K-28 HD). It is wirelessly connected to the base unit Profi 3+ (requires additional accessories) or Profi HD. The rod goes through the device and it is driven by two motors forwards or backwards. The PushBuddy® is clamped at the beginning of the pipe with a hoist motor. Meter counting is done by the PushBuddy® instead of the reel. It is operated by a replaceable rechargeable Bosch battery, so it works independently of the main supply.

Specifications

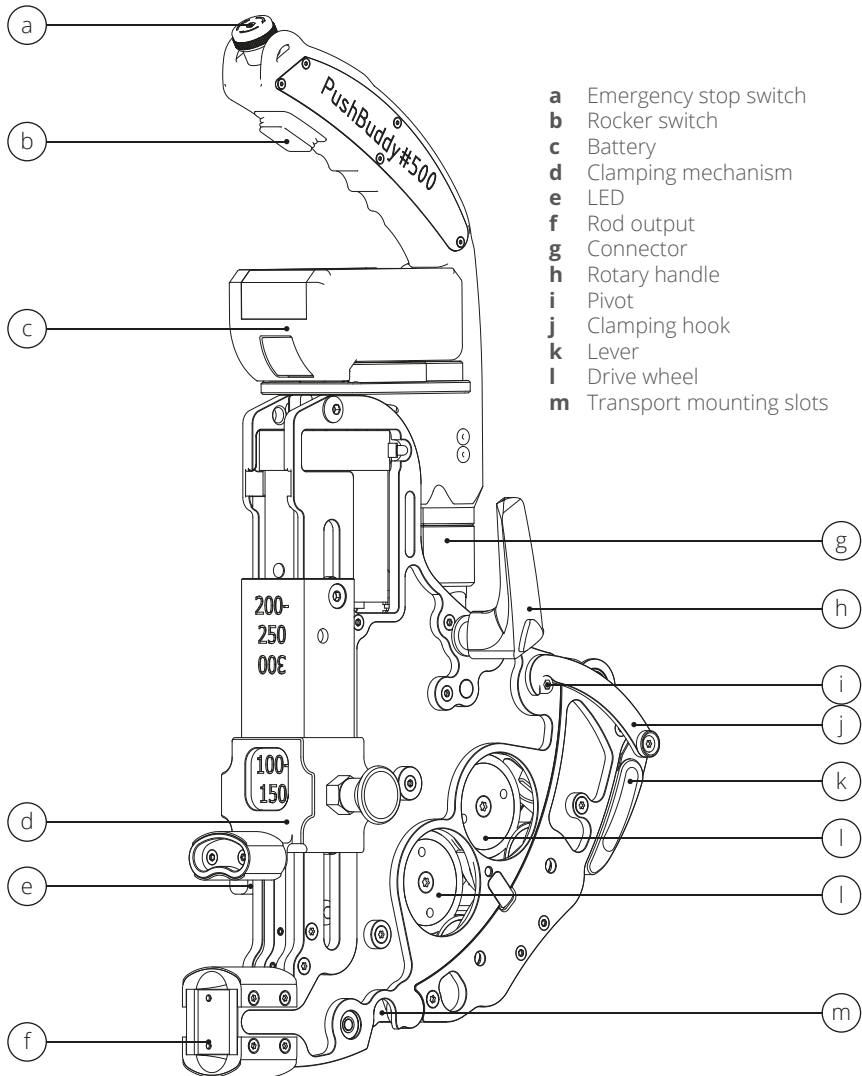
Range of use	DN100 - DN300
Dimensions (without extensions)	330 mm x 600 mm x 165 mm
Weight PushBuddy® (incl. battery)	7,5 kg
Clamping motor	DC linear actuator
Drive motor	2 EC motors
Data transfer	Wifi
Max. Speed	50 cm/s
Light	LED
Software compatibility	Record, can3D®
Protection class handle (without battery)	IP 23
Protection class extension	IP 23
Protection class PushBuddy (without handle and battery)	IP 68

Components

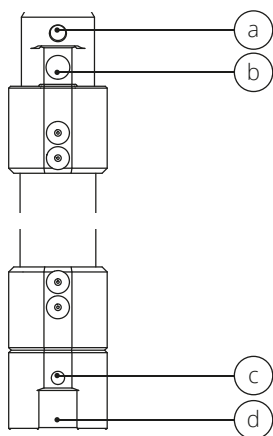
- 1 PushBuddy®
- 2 Battery
- 3 Extension 1,0 m
- 4 Extension 0,5 m
- 5 Carrier



1 PushBuddy®

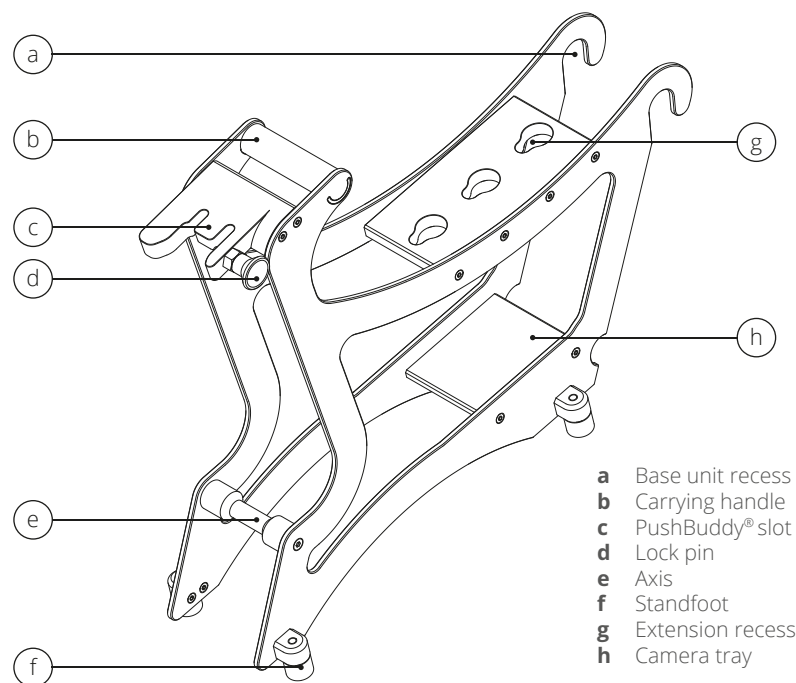


3 4 Extension



- a** Lock pin
- b** Knob
- c** Lock pin slot
- d** Anti-twist protection

5 Carrier

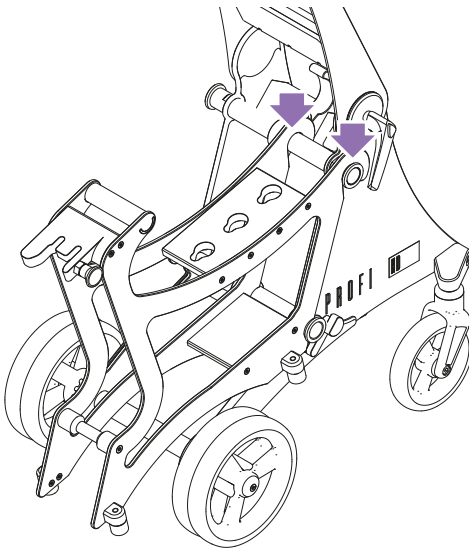


- a** Base unit recess
- b** Carrying handle
- c** PushBuddy® slot
- d** Lock pin
- e** Axis
- f** Standfoot
- g** Extension recess
- h** Camera tray

WORK PRAPARATION

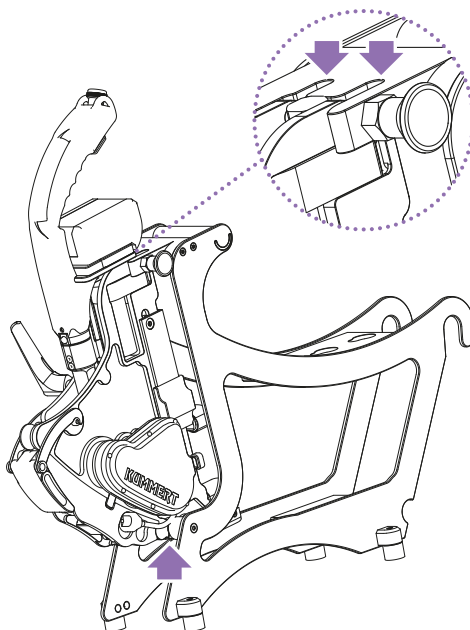
Transport to place of operation

The PushBuddy® and its accessories can be carried to a place of operation or can be transported together with the base device using a carrier. In order to do this, first hang the carrier onto the base device.



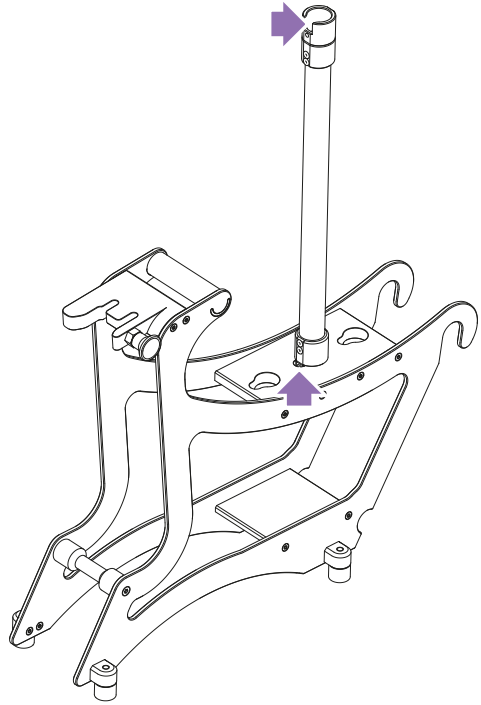
Insert the PushBuddy® into the carrier. To do this, grasp the handle and place the transport mounting slots at the bottom of the PushBuddy® onto the axis of the carrier. Keep holding the handle with one hand.

Pull out the lock pin with the other hand and hold it. Then, position the upper part of the PushBuddy® into the PushBuddy® slots of the carrier. Release the lock pin. Make sure that the PushBuddy® is securely mounted before you release the handle of the PushBuddy®.



Insert up to three extensions into the holder. Make sure that the side with the recess is facing upwards.

When inserting the extension, turn it until it engages into the opening and thus has a secure hold.

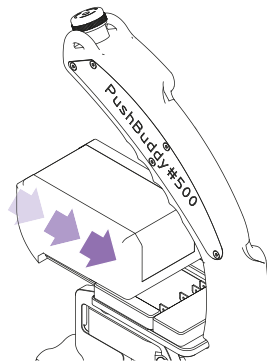


To remove the PushBuddy® carrier and the accessories from the base device, grasp with one hand the PushBuddy® handle and with the other – the handle of the carrier. Take the carrier out and place it down.

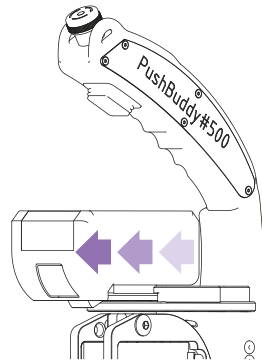
Inserting and removing the battery

Make sure that the battery is sufficiently charged before starting work.

To insert the battery, push it into the holder provided until it clicks into place.



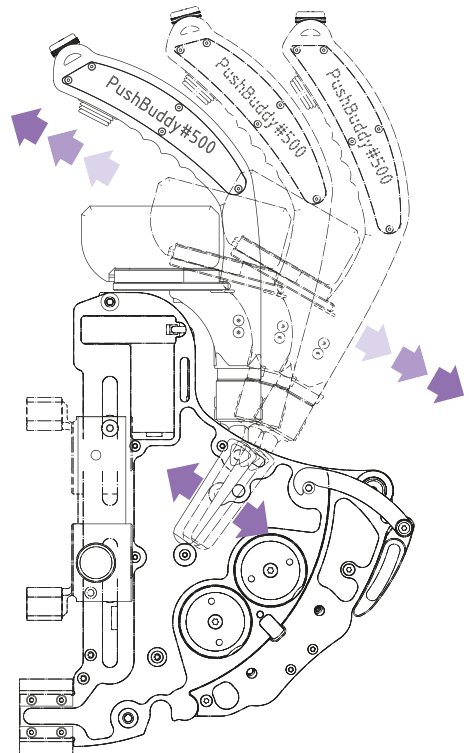
To charge or change the battery, it must be removed from the device. To do this, press and hold the button. Grasp the battery and pull it outwards.



Setting the handle

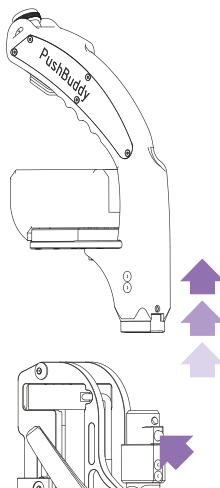
To facilitate the installation of the PushBuddy®, the angle of the handle can be changed.

Hold the handle with one hand and with the other hand release the rotary handle. Move the handle to the desired position and hand tighten the rotary handle.



Installing an extension

Remove the handle from the PushBuddy®. To do this, press the button from bottom to top and pull the handle upwards.

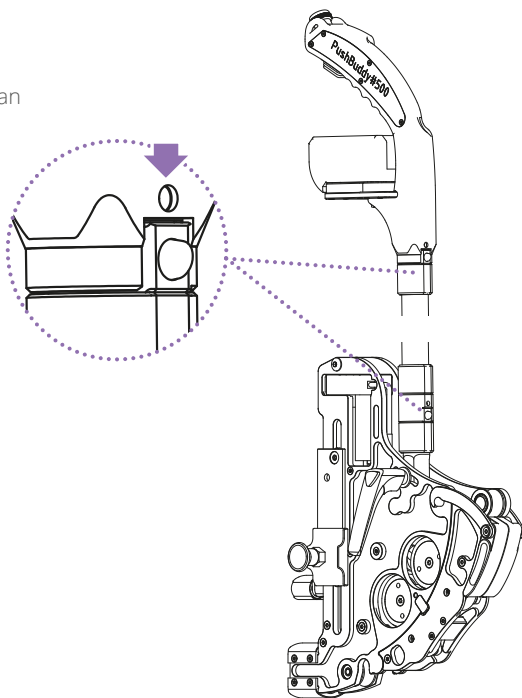


Make sure that the extensions are clean and dry.

Insert the extension. Make sure that the recess of the extension recess fits exactly into the indentation of the Pushbuddy. The pin must snap into the extension.

Add additional extension if necessary.

Attach the handle to the extension. Make sure that the recess on the handle fits exactly into the bulge. The pin must snap into the handle.



Removing an extension

Remove the handle from the PushBuddy®. To do this, press the button from bottom to top and pull the handle upwards.

Remove the extensions one after the other. Press the button from bottom to top and pull the extension upwards.

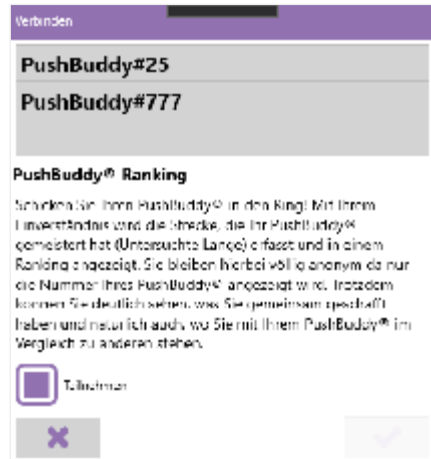
Attach the handle to the PushBuddy®. Make sure that the recess on the handle fits exactly into the bulge. The pin must snap into the handle.

Connecting PushBuddy® with a base unit

Profi 3+ or proTab

Click on the connection symbol at the bottom left of the screen and select the desired PushBuddy®. Click on „Connect“.

Once the connection is established, the beep will no longer be audible.



easyTab

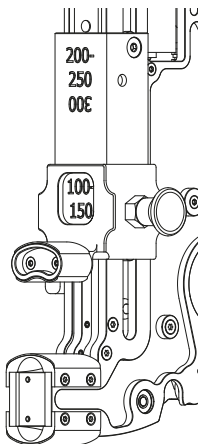
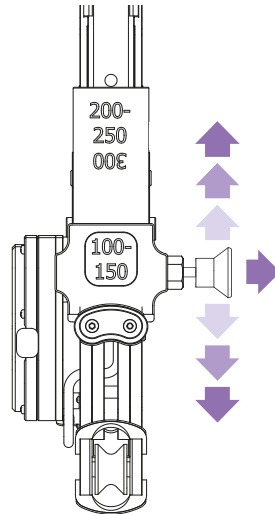
Connecting the PushBuddy® to easyTab will be possible from version 2.1.

Setting the pipe diameter

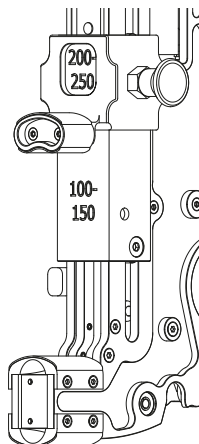
In order for the clamping device to function optimally, it must be adapted to the inspecting pipe diameter. To clamp the PushBuddy® to a pipe wall, select the smallest possible setting, i.e. 100-150. If the PushBuddy® is to be clamped to the inner side of the pipe, adjust the corresponding diameter.

Pull out the locking pin of the clamping mechanism and slide it up or down until the desired diameter range can be read in the cut-out. To adapt the device for DN300, pull out the pin of the clamping mechanism and move it downwards, turn it over and put it back in place. Position it so that 300 can be read in the cut-out.

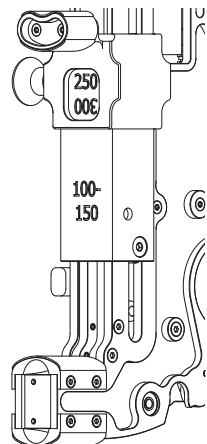
Always make sure that the pin is properly engaged.



Pipe wall or
DN100 - DN150



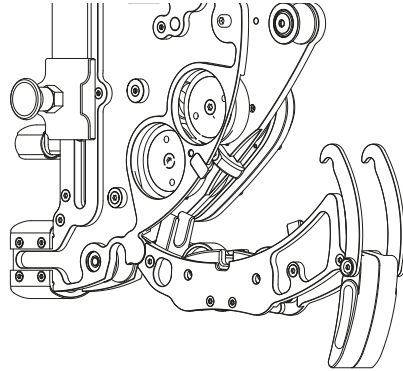
DN200 - DN250



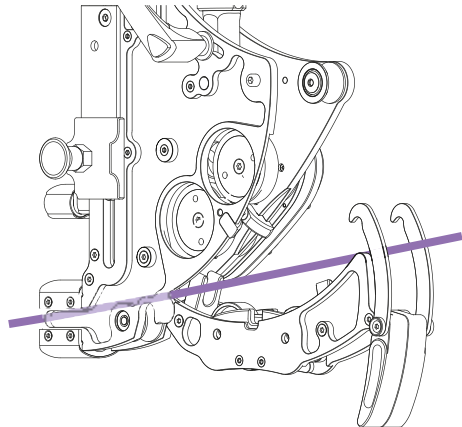
DN300

Inserting the rod into the PushBuddy®

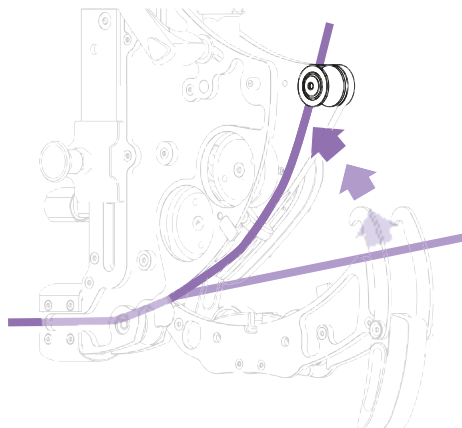
Push the lever upwards. Make sure that the clamping hooks are no longer engaged with the pivots and unfold the movable part of the PushBuddy®.



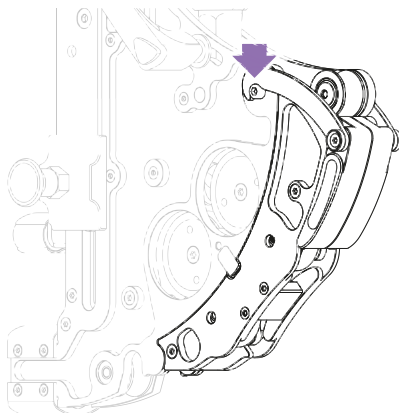
Unwind some rod from the reel (see reel operating instructions) and run it through the PushBuddy® so that the plug exits through the opening at the front.



Take the back part of the rod and place it behind the roll.



Fold the movable part of the PushBuddy® upwards. Engage the clamping hooks on both sides of the pivots and press the lever down.



Connect the camera to the rod (see camera operating instructions) and activate it via the software.

⚠ WARNING

Risk of injury by crushing or clamping!

The device has moving components. When adjusting these components, there is a risk of jamming or crushing parts of the body.

- Follow the instructions in this manual carefully.
 - Never reach into the area where the components are moving when adjusting the components.
-

Removing the rod from the PushBuddy®

Lift the lever upwards. Make sure that the lever is no longer engaged with the pivots and unfold the movable part of the PushBuddy®. Take the back part of the rod, push it a little bit forward and then to the side, to take it out of the roll. Pull the rod out of the PushBuddy® and wind it back into the reel (see reel operating instructions).

⚠ WARNING

Risk of injury by crushing or clamping!

The device has moving components. When adjusting these components, there is a risk of jamming or crushing parts of the body.

- Follow the instructions in this manual carefully.
 - Never reach into the area where the components are moving when adjusting the components.
-

Clamping PushBuddy® at the beginning of a pipe

Make sure that the PushBuddy® is connected to the base unit and that the emergency stop switch is activated. If you need light to insert the PushBuddy®, press the rocker switch briefly. The LEDs will stay on for ten seconds.

Clamping into a pipe

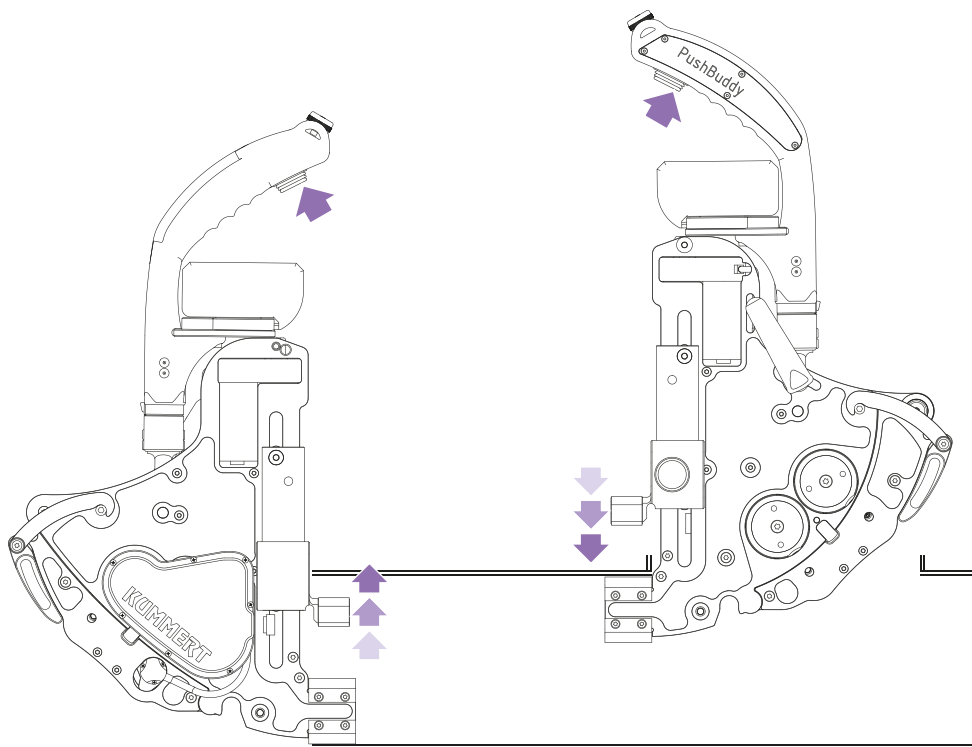
Hold the PushBuddy® by the handle and position it in such a way that both granule coated parts of the clamping mechanism are inside the pipe.

Push the rocker switch forward and keep it pressed. The clamping mechanism expands and switches off automatically when the PushBuddy® is firmly engaged. The LED flashes. Release the rocker switch.

Clamping to a pipe wall

Hold the PushBuddy® by the handle and position it in such a way that the pipe wall is between the two granule coated parts of the clamping mechanism.

Push the rocker switch backwards and keep it pressed. The clamping mechanism closes and switches off automatically when the PushBuddy® is firmly engaged. The LED flashes. Release the rocker switch.



WARNING

Risk of injury by crushing or clamping!

The device has moving components. When adjusting these components, there is a risk of jamming or crushing parts of the body.

- Follow the instructions in this manual carefully.
- Never reach into the area where the components are moving when adjusting the components.

NOTE

Risk of damage to property!

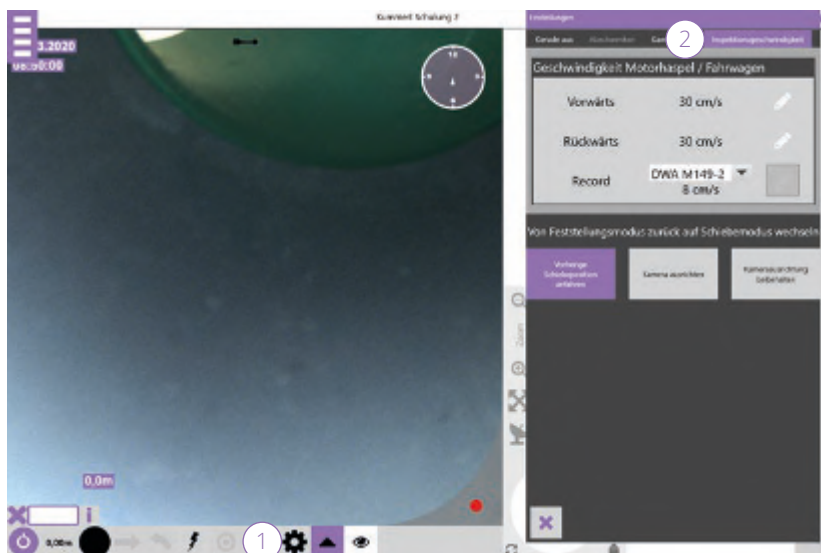
When clamping the PushBuddy®, there will be strong forces applied.

- Before use, check that the pipe can withstand these forces.

Adjusting the inspection speed

The PushBuddy® pushes or pulls the rod with a maximum of 50cm/s. The speed for pushing, pulling back and inspection can be adjusted separately in can3D.

In the Live/ TV Inspection window, click the **Settings** button (1). Select the tab **Inspection Speed** (2) and set the desired speed.

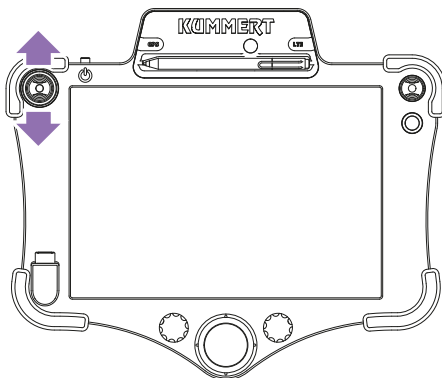


WORKING WITH PUSHBUDDY®

Start the inspection as usual (see can3D® instruction manual). To drive the rod forward, push the mini-joystick forward. To drive the rod backwards, push the mini-joystick backwards. Depending on how much you press the joystick, the rod is pushed faster or slower.

The rod is automatically pulled out of the basket of the reel when driven forward. Make sure that the freewheel brake is applied accordingly (see Reel operation manual).

When retracting, the rod must be manually wound into the reel.



END OF WORK

Make sure that the rod has been completely retracted. Release the PushBuddy® from the pipe by pressing the rocker switch. Grasp the PushBuddy® by the handle and take it out of the pipe. For easier handling, insert it into the carrier. Take the camera off the rod (see camera user manual). Open the PushBuddy® and take the rod out. Press the emergency stop switch.

CLEANING



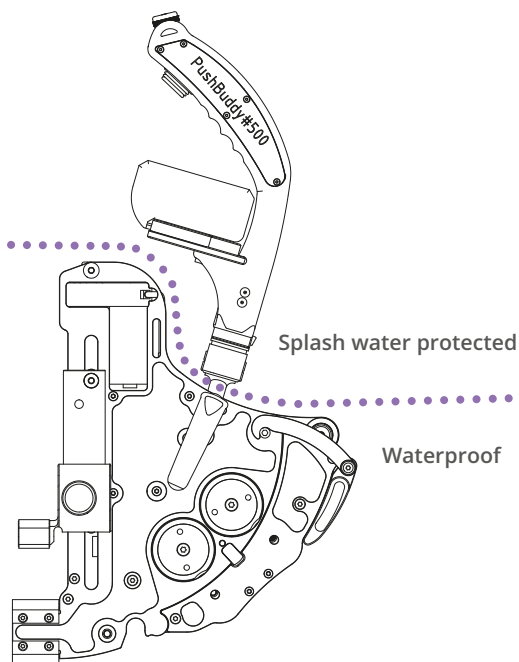
HINWEIS

Gefahr vor Sachschäden!

Unsachgemäße Reinigung kann zu Beschädigungen bis hin zum Komplettausfall der Geräte führen.

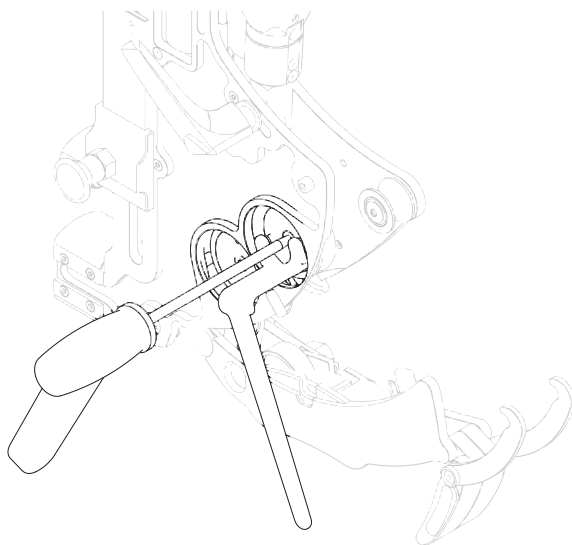
- Verwenden Sie für die Reinigung keinen Hochdruckreiniger
- Benutzen Sie keine aggressiven Reinigungsmittel
- Elektronische Teile nicht unter fließendem Wasser reinigen

Clean the waterproof part under running water. Clean the splash water protected parts and the accessories with a clean wet tissue.



If necessary, the drive wheels can be removed. Insert the holding tool into the respective wheel and hold it tight. Open the screw connection with the torque wrench. Put the screw aside.

After cleaning, insert the wheels again. Make sure that the wheel engages into the wheel housing. Insert the screw back into place. Tighten the screw with the torque wrench until it clicks.



TROUBLESHOOTING

If errors occur, you can use the following list to narrow down possible causes and, in most cases, solve the problem yourself.

MALFUNCTION	SOLUTION(S)
PushBuddy® does not connect to the base device	<ul style="list-style-type: none">• Check if the emergency stop switch is unlocked• Check if the base device meets the hardware requirements• Run can3D® update• Restart base device
PushBuddy® does not react	<ul style="list-style-type: none">• Check if the emergency stop switch is unlocked• Insert battery• Check battery charge status• Check if the connection between PushBuddy®, handle and extensions is correct

For other malfunctions, repair requests, spare part orders and other questions, please contact your supplier or our service team at:

Phone: +49 (0) 9382 9727 - 710

E-Mail: service@kummert.de

MAINTENANCE

For faultless and safe operation, it is necessary to carry out visual inspections and to keep the devices clean.

You can use the maintenance plan to look at the tasks that have to be performed at regular intervals.

	Before each use	After each use	During storage	After storage
Check if all seals are present and intact	x	x	x	x
Check if all screws are present and tight	x	x		x
Make sure that all connectors are clean and dry	x	x		x
Check drive wheels for abrasion	x	x		
Remove battery		x	x	
Clean device (s. „Cleaning“)		x		

DISPOSAL



NOTE

Danger to environment!

Incorrect disposal may cause dangers to the environment.

- Electrical waste, electronic components, lubricants and other substances may only be disposed of by certified specialist companies.
 - When in doubt, ask for information on environmentally safe disposal at your local authorities or specific waste management companies.
-

When the device has reached the end of its useful life, it has to be disassembled and disposed of in an environmentally safe manner.

Unless both parties agreed otherwise on recycling or disposal, all components must be properly dismantled and recycled by the owner as follows:

- Scrap any metal parts.
- Recycle any plastic parts in the appropriate manner.
- Dispose of all other components separately depending on the nature of material.

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