
	Service info Cleaning agent lance with empty signal unit	
	Re: Vario (+/smart)	
	Date July 2016	
Page 1 out of 12	Modification	

Conversion kit for cleaning agent lance with empty signal unit

1 Introduction

These installation instructions put you in the position to install the cleaning agent lance safely as intended.

- > Please read these installation instructions carefully before installing the cleaning agent lance.
- > Keep these installation instructions ready and available at all times.
- > Comply with all safety instructions in these installation instructions at all times.
- > Please also observe the original operating manual for the automatic feeder.

1.1 Disposal



All components, liquids and solids must be disposed of in compliance with the official local regulations for waste prevention and appropriate waste recycling or disposal which apply in the your country. Also observe the corresponding safety data sheets.

2 For your safety

2.1 Target group

2.1.1 Necessary qualifications of the service technician




Only trained service technicians are authorized to install the cleaning agent lance and put them into service.

 S47.1e	Service info Cleaning agent lance with empty signal unit	
	Re: Vario (+/smart)	
	Date July 2016	
Page 2 out of 12	Modification	

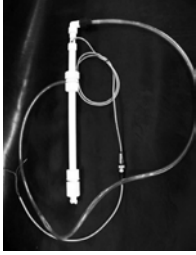
Service technicians are electricians with appropriate qualifications, i.e. they are able to assess the work assigned to them and detect potential risks on the basis of their technical training as well as their knowledge of the relevant standards. This also includes knowledge of relevant accident prevention regulations, generally accepted safety regulations, EC guidelines and country-specific standards and provisions.

2.2 Indication of hazards

Hazards are indicated by a key word and a corresponding symbol, depending on the severity and probability:

	Danger! For an imminent danger, resulting in serious injuries or death.
	Warning! For a potentially dangerous situation which may cause serious injuries or even death.
	Caution! For a potentially dangerous situation which may cause minor injuries or material damage.
Attention	For a potentially harmful situation in which the product or an item can become damaged within its environment.
Note	For application notes and other useful information.

However, it is just as important to comply with any other notes and information which are not highlighted, so as to avoid failu-



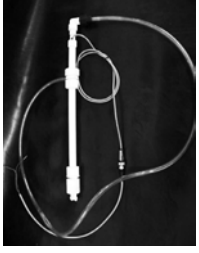
FÖRSTER TECHNIK® S47.1e	Service info	Cleaning agent lance with empty signal unit	
	Re:	Vario (+/smart)	
	Date	July 2016	
Page 3 out of 12	Modification		

res which in turn may cause direct or indirect injuries or material damage.

2.3 Safety instructions

Remember:

- You must follow all safety instructions in the safety data sheet for the cleaning agent you are using.
- You must always wear the protective gear, such as protective goggles and gloves, specified in the safety data sheet for the cleaning agent you are using.
- Undiluted cleaning agent may not be drained into the ground water or sewage system. Observe the recommendations in the safety data sheet for your cleaning agent and contact your water utility company and your sewage disposal company to find out which regulations apply to you.
- Observe the manufacturer's instructions and national regulations for use, storage and installation site of the cleaning agent used.
- Only use the cleaning agents recommended in this operating manual.
- Observe the manufacturer's guidelines regarding the amount, temperature and concentration of cleaning agent used.

 	Service info Cleaning agent lance with empty signal unit	
	Re: Vario (+/smart)	
	Date July 2016	
Page 4 out of 12 Modification		

3 Cleaning agents

Only use the following cleaning agent:

- HyClean K45

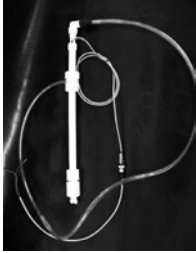
⚠ WARNING Beware of Chemical burns from cleaning agents. The cleaning agent can cause chemical burns to your eyes or hands. Always wear goggles and protective gloves when using cleaning agents. Follow all the safety instructions listed in the safety data sheet for the cleaning agent and wear the specified safety equipment.

⚠ ATTENTION Never use cleaning agents containing chlorine, as they can attack the materials of the automatic feeder and impair its function. If this happens, your calves may not receive enough feed. This can lead to malnutrition, which can cause impaired growth and development, increased susceptibility to illness or even the death of your calves.

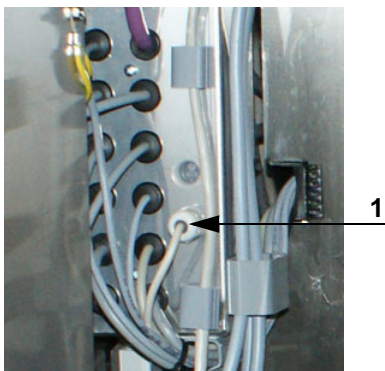
4 Removing the cleaning agent lance with empty signal unit

⚠ WARNING The automatic feeder is electrically operated. Switch off the automatic feeder and disconnect the power plug before starting the removal process.

1. Open the control box of the automatic feeder.
2. Remove the connectors for the empty signal unit from the X36 plug (see machine circuit diagram).
3. Open the left door of the automatic feeder.

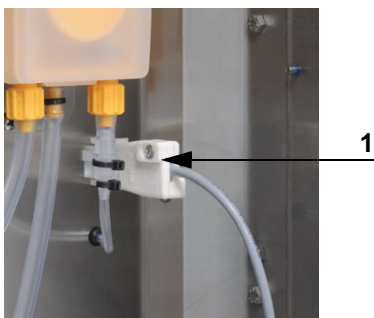
FÖRSTER TECHNIK® S47.1e	Service info	Cleaning agent lance with empty signal unit	
	Re:	Vario (+/smart)	
	Date	July 2016	
Page 5 out of 12	Modification		

- Undo the PG screw fitting and disconnect the cable for the empty signal unit from the control box.




1 Screw fitting for empty signal unit

- Close the control box.
- Disconnect the plug of the empty signal unit from the socket in the feeder housing.



1 Plug

- Undo the screws that attach the powder hopper to the feeder housing. The screws are located to the left and right of the feeding box.

FÖRSTER TECHNIK® S47.1e	Service info Cleaning agent lance with empty signal unit	
	Re: Vario (+/smart)	
	Date July 2016	
Page 6 out of 12 Modification		

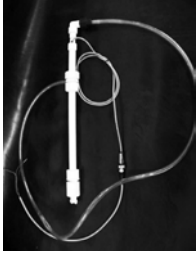
8. Undo the screws that attach the earthing cable to the powder hopper attachment and remove the powder hopper.
9. Remove the cable of the empty signal unit as well as the socket from the feeder housing.
10. Reinstall the powder hopper.
11. Undo the screw of the left hose on the cleaning agent pump.
12. Remove the cleaning agent along with the hose and empty signal unit.

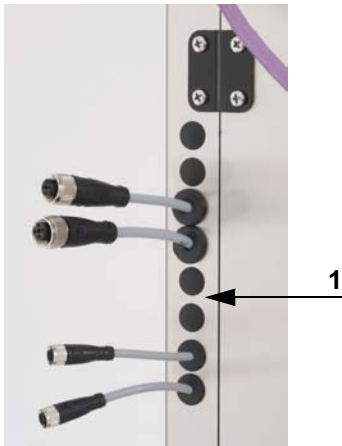
5 Installing the cleaning agent lance

⚠ WARNING The automatic feeder is electrically operated. Switch off the automatic feeder and disconnect the power plug before starting the installation process.

ATTENTION The cleaning agent tank must be positioned so that it cannot tip over and it cannot be accessed by calves, unauthorised persons and children.

1. Switch off the automatic feeder and disconnect the power plug.
2. Remove the third or fourth dummy plug (counting from the bottom) on the left side of the automatic feeder.

FÖRSTER TECHNIK® S47.1e	Service info	Cleaning agent lance with empty signal unit	
	Re:	Vario (+/smart)	
	Date	July 2016	
Page 7 out of 12	Modification		



1 Dummy plug

3. Insert a grommet and feed the cable into the feeder housing.
4. Open the left door of the automatic feeder and feed the cable through PG screw fitting into the control box (see circuit diagram).



1 Screw fitting

5. Open the control box of the automatic feeder and connect the cable according to the circuit diagram.

Service info

Cleaning agent lance with empty signal unit

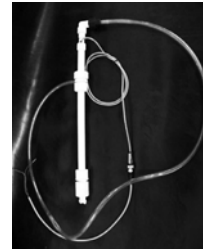
Re:

Vario (+/smart)

Date

July 2016

Modification



6. Close the control box.
7. Unscrew the elbow grommet of the cleaning agent lance and remove the upper threaded couplings.
8. Install the cover cap of the elbow socket on the end of the new hose.






9. Remove the left dummy plug from the rear panel of the feeder and insert a grommet.



- 1 Opening for cleaning agent



This symbol on the back of the automatic feeder indicates the hose and the opening for the cleaning agent.

 	Service info Cleaning agent lance with empty signal unit	
	Re: Vario (+/smart)	
	Date July 2016	
Page 9 out of 12	Modification	

10. Lead the other end of the new hose through the grommet and fasten the hose to the suction side of the cleaning agent pump.



1 Hose on cleaning agent pump

11. Drill a hole (25 mm diameter) for the cleaning agent lance in the lid of your cleaning agent tank.

12. Guide the cleaning agent lance from below into the lid of your cleaning agent tank. Thread the upper threaded couplings onto the lance from above and tighten them.



Note: The height of the sensor can be adjusted by loosening the two threaded couplings.

13. Connect the cover cap to the elbow grommet and reattach it to the cleaning agent lance.

Service info

Cleaning agent lance with empty signal unit

Re:

Vario (+/smart)

Date

July 2016

Modification



14. Connect the cable of the cleaning agent lance to the unconnected cable end on the automatic feeder.

15. Place cleaning agent tank in the appropriate position.

16. Connect the power plug and switch on the automatic feeder.


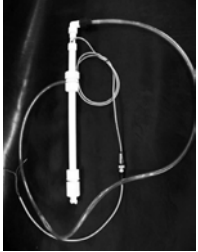
17. If necessary, activate the cleaning agent empty signal function in **setup** under **Equipment > Det. Sensor** and set the value to **[Yes]**.

18. Check the position of the float switch. Hold the cleaning agent lance vertical.

- If float is down by sieve: **Detergent empty** warning appears.
- If float is up: no warning




Note: If the warning appears when the float is up, you must remove the sieve, turn the float by 180° and reattach the sieve.

19. Install the cleaning agent lance in the lid of your cleaning agent container.

 S47.1e	Service info	Cleaning agent lance with empty signal unit	
	Re:	Vario (+/smart)	
	Date	July 2016	
Page 11 out of 12	Modification		



Note: Small ventilation holes in the lid prevent the cleaning agent container from contracting. For more information, refer to the manufacturer's specifications and national regulations.

20. Choose  > **Diagnosis** to go to the **Motors** submenu.
 21. Place the calibration box back into the feeding box.
 22. Confirm **Detergent start?** by choosing  and hold down the key until the liquid additive is dispensed into the calibration box.
 23. Calibrate the cleaning agent by choosing  > **Calibration** > **Components** > **Detergent**.
- For more information, see the **operating manual of your automatic feeder**.

Service info	Cleaning agent lance with empty signal unit
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Date	July 2016
Modification	

