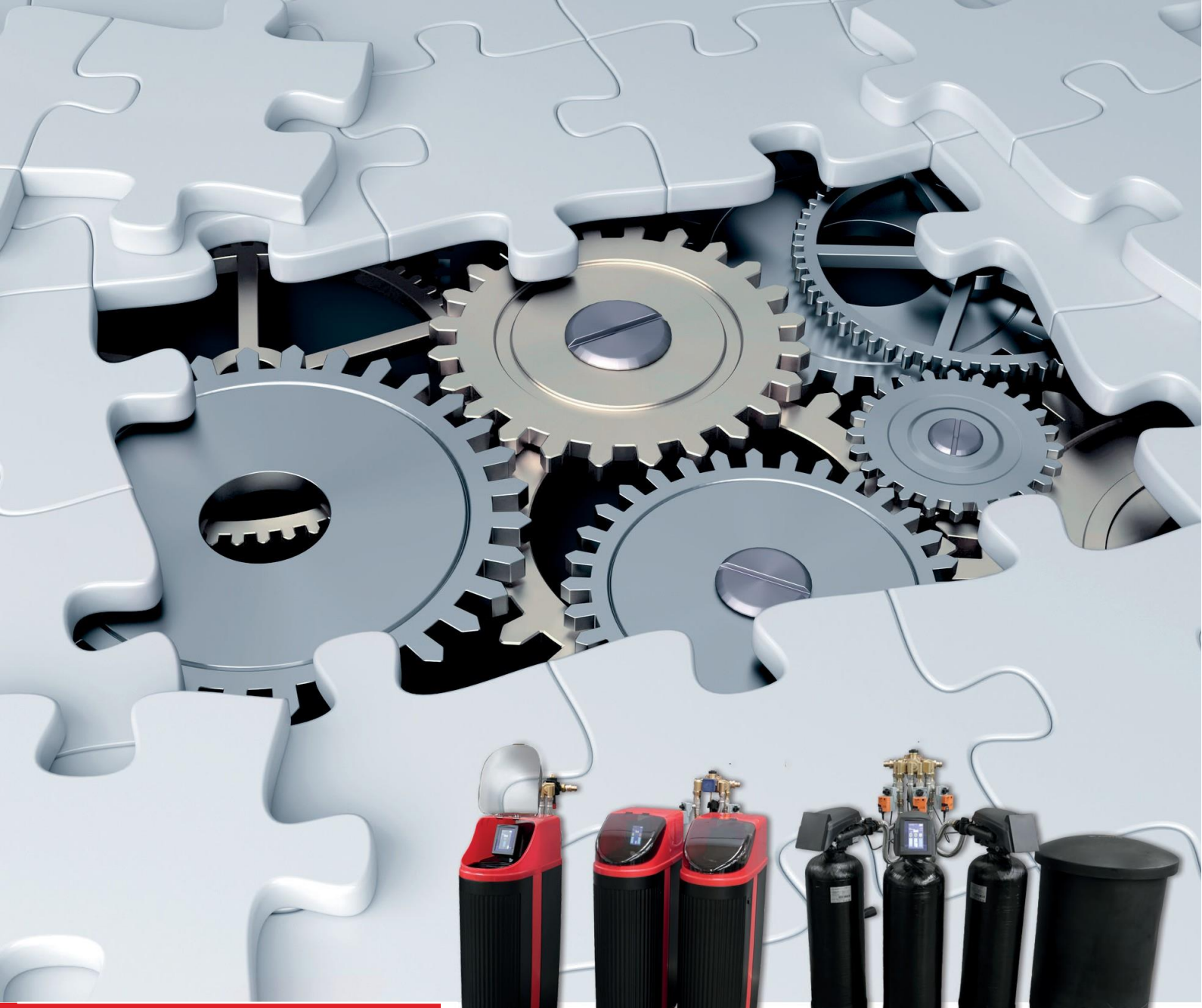


Use and Maintenance

LEX 1500 Connect Water Softening Systems

SYR CONNECT

SYR®

Haustechnik mit System

Installation site requirements

Follow these instructions in order to prevent any problem with the LEX 1500 Connect Water Softener.

Install the water softener in a dry room, which is not liable to frost. The ambient temperature should not exceed 30 °C.

The system requires a power supply (230 V, 50 Hz) under constant voltage.

A gravity flow connection to the sewer for the waste water hose and the salt tank's safety overflow is also necessary.

The water softening system is usually installed downstream of the protecting filter, the pressure reducing valve (compulsory when the static pressure is equal to or exceeds 5.0 bar) and upstream of a dosing pump (optional).

To prevent huge damage on the installation site due to a leaking device or supply line (for instance in an office, medical practice etc.), it has to be ensured that during the personnel's absence the water and power supply are interrupted upstream of the system.

We recommend our leakage detector Safe-T Connect with an integrated floor sensor (serial number: 2421.00.010).

Do not disconnect during the regeneration process.

When restarting the device after a service interruption, repeat the same steps as for the initial start-up (cf. the relevant instructions for installation and start-up).

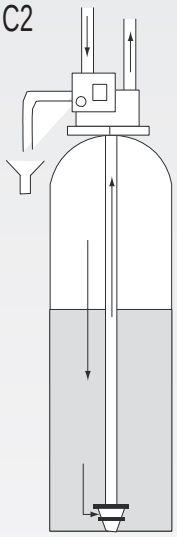
The water to be softened has to be clear, free of solid impurities as well as iron and manganese-free.

An additional water analysis may be helpful: we will be glad to offer you support with a free-of-charge water sample analysis. Send us your sample and contact us for further details.

Operation

Flow from the brine tank

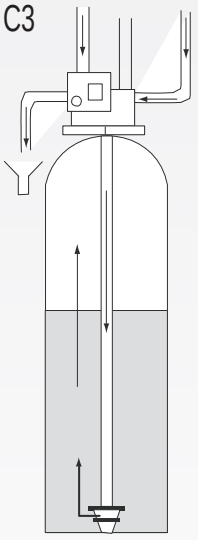
C2



Brine preparation (display – pause1) – cycle C2:
The control unit fixes the time required for dissolving the salt in the water. During this period, the water softener works in normal mode – i.e. the water undergoes the normal softening process (the water flows normally through the device).

When the brine preparation time is over, the control unit places the cam in the C3 position.

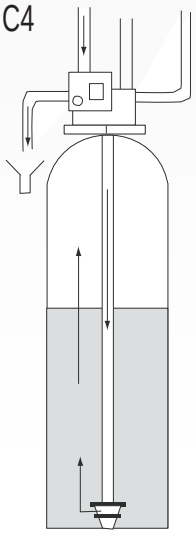
C3



Flushing with brine (flow upwards) – cycle C3:
The control unit directs the water through the injector and the brine is sucked in from the brine tank. Afterwards the brine is directed downwards through a vertical pipe and then upwards (countercurrent) through the resin layer to the sewer. The ions responsible for water hardness are replaced by sodium ions and are directed to the sewer.

The resin is regenerated during this brine absorption cycle. The cycle finishes automatically.

C4

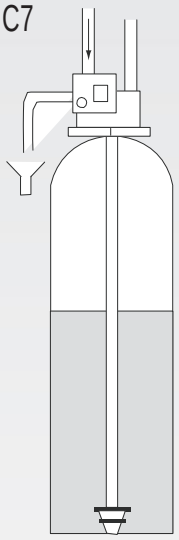


> No cam movement
Slow flushing (flow upwards) – cycle C4:
The control unit directs the water through the injector. The water is slowly directed downwards through a vertical pipe, upwards through the resin layer and then to the sewer.

This the final stage of the regeneration process with brine; the salt residues are flushed out of the resin layer. The brine is slowly flushed out of the resin layer.

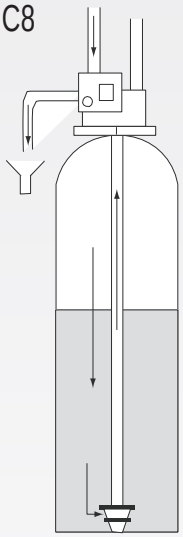
The control unit goes through the positions C4 and C5 and puts the cam in the C6 position.

C7



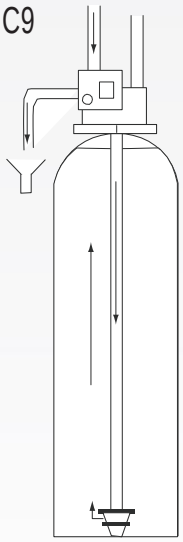
Pressure balancing cycle (display pause 2) – cycle C7:
During this cycle, the valves close for a moment, which allows for the compensation of the hydraulic pressure in the resin layer - relief (water – air), so that the regeneration process can continue.

C8



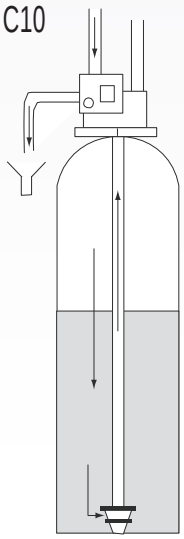
> The control unit puts the cam in C7 position.
Fast flushing 1 (flow downwards) – cycle C8:
The control unit directs the water through the resin layer downwards and through a vertical pipe upwards to the sewer. The brine residues are flushed out of the resin layer and directed to the sewer.

C9



> The control unit puts the cam in C8 position.
Backwashing 1 (flow upwards) – cycle C9:
The control unit changes the direction of the water flow. The resin layer is flushed with water flowing from bottom to top. When backwashing, the resin layer is loosened up again and the residues are flushed out and directed to the sewer.

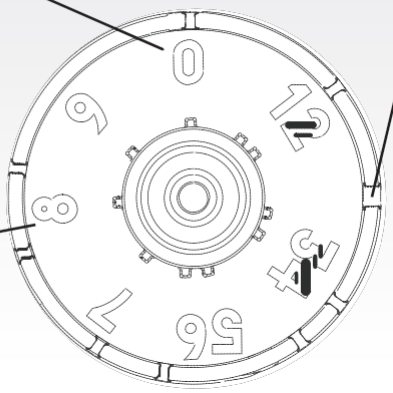
C10



> The control unit puts the cam in C9 position.
Fast flushing 2 (flow downwards) – cycle C10:
The control unit directs the water through the resin layer downwards and through a vertical pipe upwards to the sewer. The brine residues are flushed out of the resin layer and directed to the sewer. The control unit puts the cam in C0 position.

Cam position in the various cycles

Verify the cam position in the different cycles in the upper part of the cam.
In this case, it is cycle 0
Normal mode – Water softening



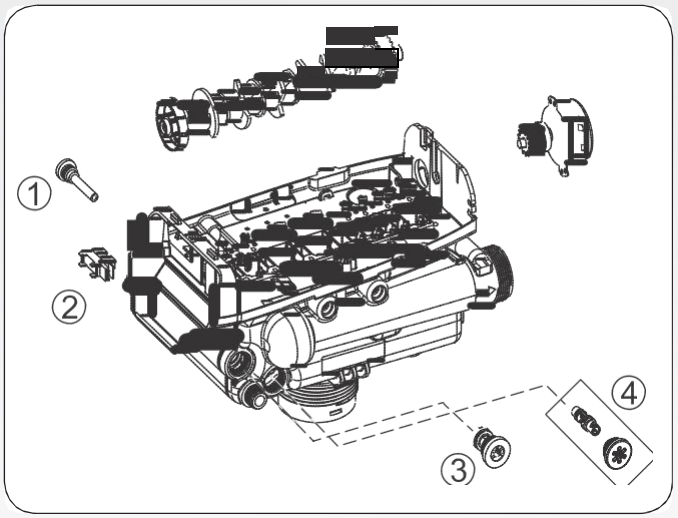
Extended opening means normal mode

Position of the optical precision indicator

Numbers on the circular display on the front cam disk

Maintenance / Intervals

Remove the cover(s) of the device, the cover(s) of the control head(s) and the cover of the salt tank(s) to service the device.



- Strainer
- Optical glass
- Chlorinator cell
- Injector

In order to ensure trouble-free and durable functionality, we recommend the maintenance set 1500.00.930 that includes the following:

- seal kit
- optical glass
- chlorinator cell
- strainer

The spare parts included in the maintenance set should be exchanged approximately every two years.

Maintenance	Interval	
Check hardness setting	every 3 months	Operator
Cleaning salt tank	once per year	Qualified installer
Cleaning chlorinator cell	once per year	Qualified installer
Exchange chlorinator cell	every 2 years	Qualified installer
Cleaning strainer	once per year	Qualified installer
Exchange strainer	every 2 years	Qualified installer
Cleaning injector	once per year	Qualified installer
Exchange injector	every 2 years	Qualified installer
Function test	once per year	Qualified installer

Warranty

According to DIN EN 806, part 5, the operator has to make an inspection at least every two months. Warranty claims may not apply if this inspection interval has not been observed.

Servicing by the manufacturer or qualified installers is also required at least once a year and in case of multi-family houses twice a year.

We recommend concluding a service contract to ensure best functionality, also beyond the warranty period.

Make sure that qualified installers or the manufacturer's customer service regularly carry out maintenance works and provide the necessary consumables or wear-out parts etc.

The warranty period lasts 24 months as of the date of installation.

We commit ourselves to repair or replace as quickly as possible all parts that become unserviceable during the warranty period as a result of verifiably bad materials, a defective construction or a faulty model.

Our highest objective is to manufacture high-quality products.

Should you be faced with a problem, for which no solution is proposed in this instructions manual, contact us. We will be glad to help you.

Always indicate the model and the serial number of the device.

Postal address:
Hans Sasserath GmbH & Co. KG
Muehlenstrasse 62
D-41352 Korschenbroich

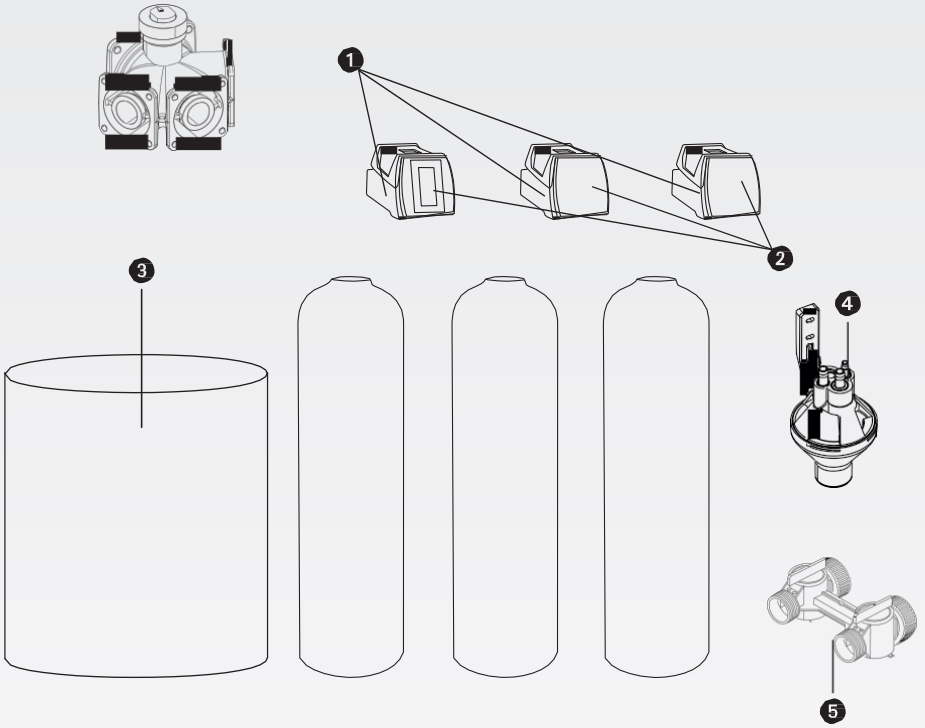
Phone +49 2161 6105 - 0
Fax +49 2161 6105 - 20
E-Mail export@syr.de

www.syr.de

LEX T 1500 Connect Triple Water Softener

Technical specifications				
Nominal flow rate	LEX T1 5.0 m^3/h	LEX T2 5.6 m^3/h	LEX T3 9.0 m^3/h	LEX T4 11.2 m^3/h
Nominal capacity	LEX T1 4.1 mol	LEX T2 4.1 mol	LEX T3 4.1 mol	LEX T4 4.1 mol
Nominal pressure	PN 10			
Minimum service pressure	2 bar			
Max. admissible service overpressure	8.0 bar (the central installation of a pressure reducing valve is compulsory when the static pressure is > 5.0 bar)			
Operating temperature	min. 5 °C, max. 30 °C			
Ambient temperature	min. 5 °C, max. 40 °C			
Pressure loss at nominal flow rate	1.0 bar			
Salt stock	LEX T1 110 kg	LEX T2 200 kg	LEX T3 300 kg	LEXT4 300 kg
Power supply	12V / 50Hz / 6W			
Device supply	12V DC			
Salt consumption per regeneration	LEX T1 1.6 kg	LEX T2 2.4 kg	LEX T3 4.8 kg	LEX T4 7.2 kg
Flushing water quantity	LEX T1 155 l	LEX T2 155 l	LEX T3 217 l	LEX T4 243 l
Regeneration time	LEX T1 126 min.	LEX T2 125 min.	LEX T3 149 min.	LEX T4 186 min.
Volume of the exchanger resin	LEX T1 80 m^3x°dH	LEX T2 120 m^3x°dH	LEX T3 240 m^3x°dH	LEX T4 360 m^3x°dH

LEX T 1500 Connect Triple Water Softener



1 Control head

LEX T1	1500.00.920
LEX T2	1500.00.921
LEX T3	1500.00.937
LEX T4	1500.00.938

2 Control Connect

LEX 10	1500.00.941
LEX 20	1500.00.942
LEX 30	1500.00.943
LEX 40	1500.00.944

3 Cabinet, incl. cover

T1	1500.00.931
LEX T2	1500.00.932
LEX T3 + T4	1500.00.933

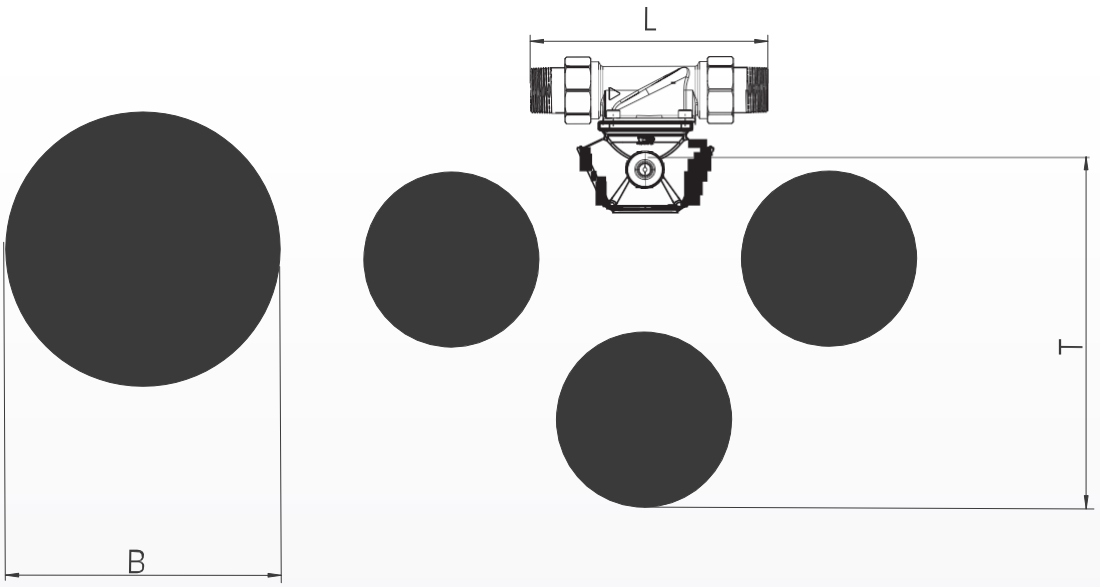
4 Bypass valve
1700.00.002

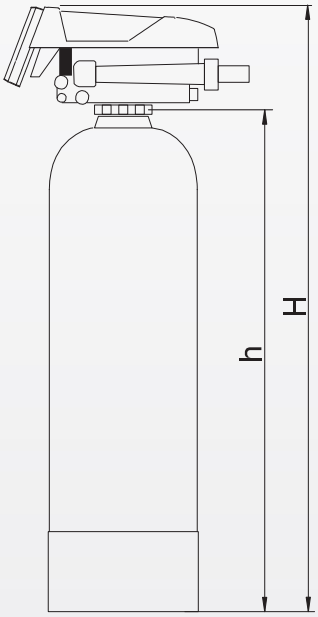
5 Tundish
0214.00.908

No figure

Seal kit
1500.00.904

Hoses
1500.00.905





		LEX T1	LEX T2	LEX T3	LEX T4
Dimensions	H (mm)	1.070	1.070	1.150	1.570
	h (mm)	900	900	980	1400
	T (mm)	about 1.000	about 1.000	about 1.000	about 1.000
	B (mm)	460	460	620	620