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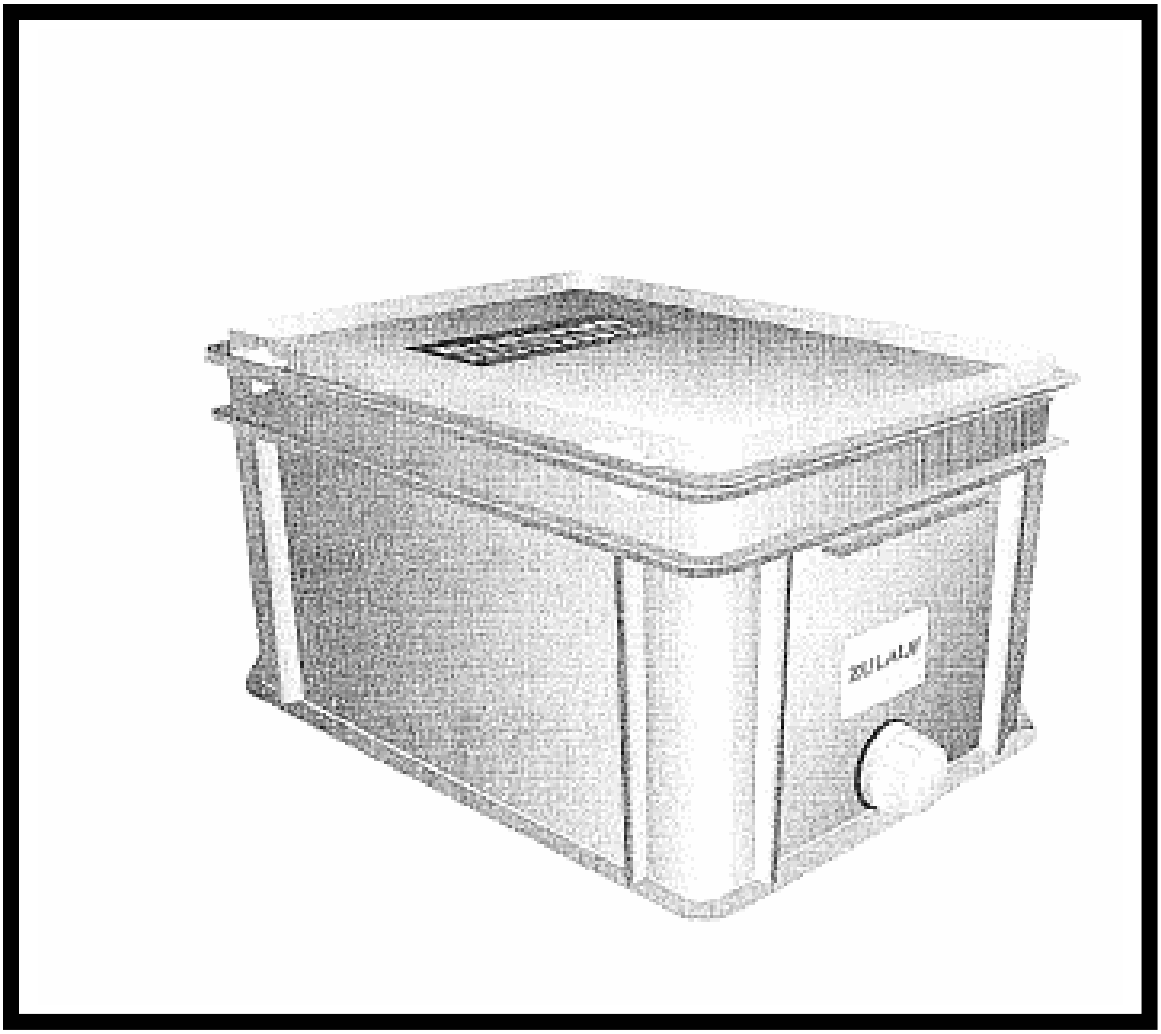
Buderus
HYDRONIC SYSTEMS

Assembly and Maintenance Instructions Buderus Neutralization Kit NE 0.1



Please read carefully prior to assembly and maintenance.

1 GENERAL INFORMATION

This neutralization kit is used to neutralize the condensate coming from condensing boilers operating on natural gas or propane.

Please observe local code regarding the discharge of treated condensate into the sewer systems.

In case the condensate must be neutralized, one should strive for a slightly alkaline pH level.

The neutralization kit ensures the proper pH level of the condensate prior to discharge into the sewer system.

1.1 PRODUCT APPLICATION

This neutralization package can only be used to neutralize condensate from condensing gas fired boilers.

This neutralization package is specially developed for heating systems with a near floor condensate drain on the boiler. No electrical supply is needed for operation. This neutralization package can handle boilers up to 4,000 MBH output.

1.2 GUIDELINE OF NOTICES

Danger of injury/ System damage
Denotes a possible dangerous situation that can lead to mild to moderate bodily injury or physical damage.

NOTICE:
Application hint for optimum use of equipment and/or adjustment and useful information.

Please observe the following notices:

DANGER:
Due to dust and direct eye contact with the neutralization kit.

- Fill the package carefully and avoid dust.
- Rinse your eyes thoroughly after contact.

NOTICE:
Observe the notice supplied with the neutralization agent.

DANGER:
Due to exhaust gases.

- Pour about 2 to 3 gals of water into the clean-out opening of the flue collector prior to operating the boiler/burner system. This water will fill the neutralization package and boiler condensate trap and avoid discharge of flue gases. The clean-out opening on the flue collector is located at the rear of the boiler.

NOTICE:
Observe also the documentation provided with the boiler.

2 COMPONENTS, CONNECTIONS AND DIMENSIONS

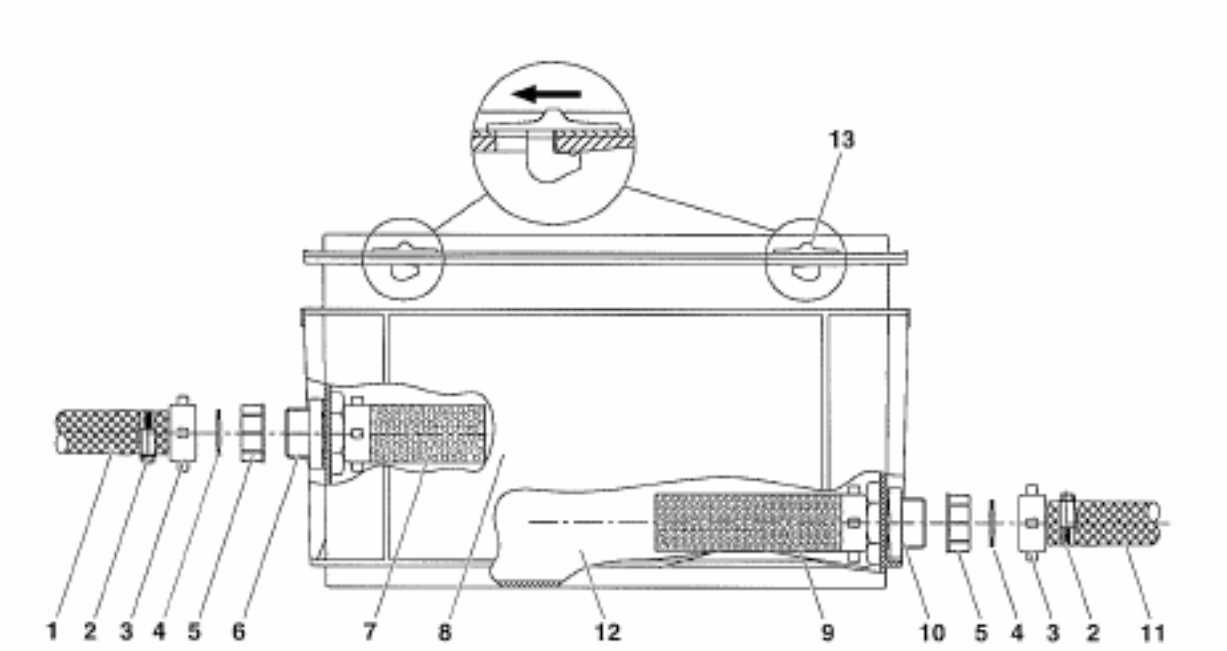


Fig 1. Neutralization Kit

1. Discharge Hose
2. Clamp
3. Hose Adaptor
4. Hose Gasket
5. Protective Cap
6. Discharge Hose Connection
7. Discharge Filter Hose Connection
8. Neutralization Box with Cover
9. Intake Filter Hose Connection
10. Intake Hose Connections
11. Intake Hose
12. Neutralization Agent
13. Locking Slide for Box Cover

Connections		Weight
Intake	Discharge	
1”	1”	35lbs

3 INSTALLATION OF NEUTRALIZATION KIT

INSTALLATION OF NEUTRALIZATION KIT

Place the kit near the exhaust of the condensing gas boiler. The top of the box (A) must be greater than 4¼".

- Remove cover of the neutralization box.
- Place box on level surface.
- Install intake and discharge hoses (See chapter 4, page 5).

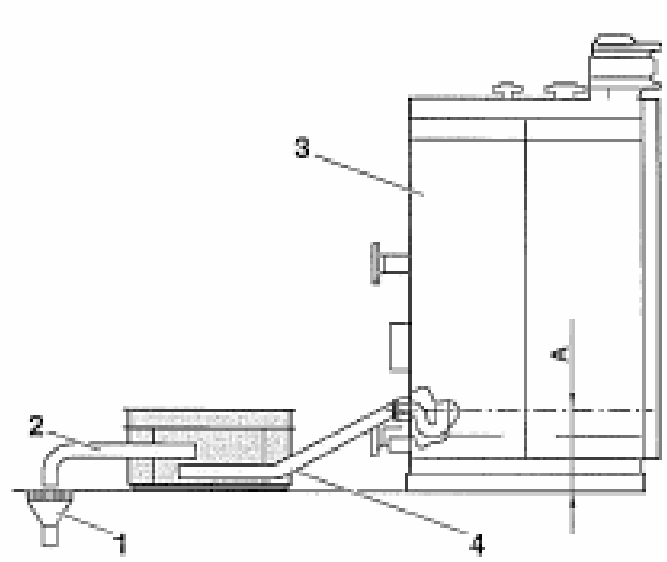


Fig. 2 Placement of neutralization box.

1 Floor Drain.
2 Discharge Hose
3 Boiler
4 Intake Hose

NOTICE:

Position the neutralization box so that no air pockets remain or form in either hose and that all condensate flows freely into the box.

4 ASSEMBLY OF NEUTRALIZATION BOX

Do not use the box as a stepping platform, as it is made from plastic. Do not place any strain on the hoses. This can result in damaging the connections.

NOTICE:
Make sure that all parts in contact with condensate (such as flue collar, hoses etc.) are either made from plastic or stainless steel material.

- Remove yellow covers (Fig. 1, item 5, page 3) from threaded connections.
- Shorten intake hose (Fig. 1, item 11, page 3) to desired length and mount components in order shown (Fig. 3, item 2 and 3).
- Shorten the pre-mounted discharge hose (Fig. 1, item 1, page 3) to desired length and secure.

NOTICE:
The end of the discharge hose must be readily visible (Fig. 1, item 1, page 3) so that one can check the proper functioning of the neutralization kit.

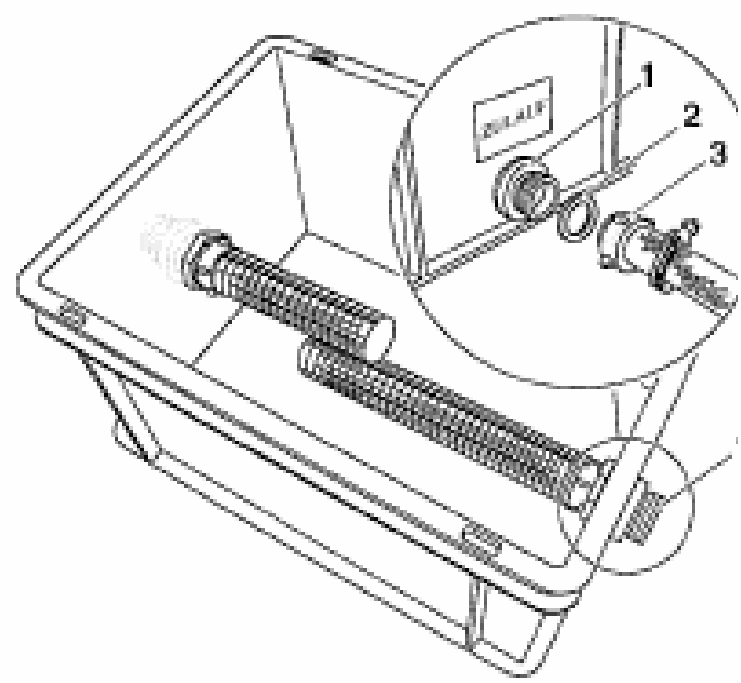


Fig. 3 Assembly of Hose

1 intake hose
2 gasket
3 hose insert

4 ASSEMBLY OF NEUTRALIZATION BOX

- Fill box with neutralization agent.

DANGER:
Due to dust and direct eye contact.

- Carefully fill box with agent and avoid dust.
- Rinse eyes thoroughly when coming in contact with agent.

NOTICE:
Follow guidelines provided with neutralization agent.

- Cover the filtered hose ends evenly with neutralization material. (Fig. 4, item 1).

DANGER:
Due to exhaust gases.

- Pour about 2 to 3 gals of water into the clean-out opening of the flue collector prior to operating the boiler/burner system. This water will fill the neutralization package and boiler condensate trap and avoid discharge of flue gases. The clean-out opening on the flue collector is located at the rear of the boiler.

NOTICE:
Observe also the documentation provided with the boiler.

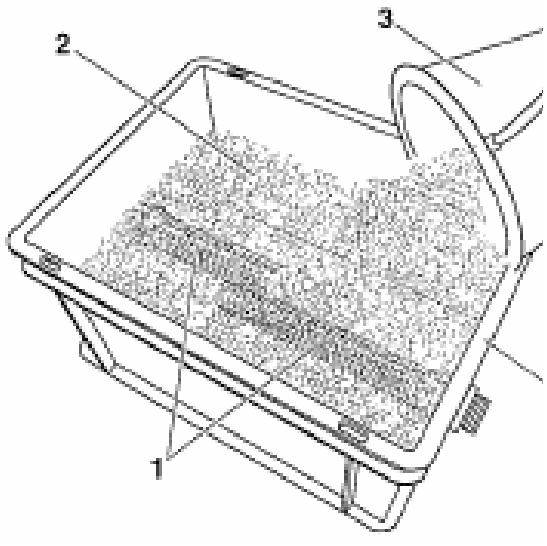


Fig. 4 Filling of neutralization box.

1 Covered filtered hose ends.
2 Neutralization agent.
3 Container with agent
4 Neutralization box.

5 TESTING AND MAINTENANCE OF NEUTRALIZATION BOX

NOTICE:
Check the neutralization kit initially a few times after initial start-up as the condensate flow can vary. Check the system annually. Make sure that sufficient amount of agent is always in the box.

- Check pH value. Check pH level at end of discharge hose.

When the pH level is less than 6.5, change out the neutralization material. Take the following steps:

- Disconnect system electrically.
- Remove box cover.
- Remove used material with a hand shovel from the box and discard with the trash.

NOTICE:
Neutralizing agent is environmentally safe and can be dumped in the trash. Unused material and build-up can be discarded as well.

- Remove intake and discharge hoses.
- Clean neutralization box (Fig. 1, item 8, page 3).
- Place neutralization box back into operation (refer to chapter 4, page 5).

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