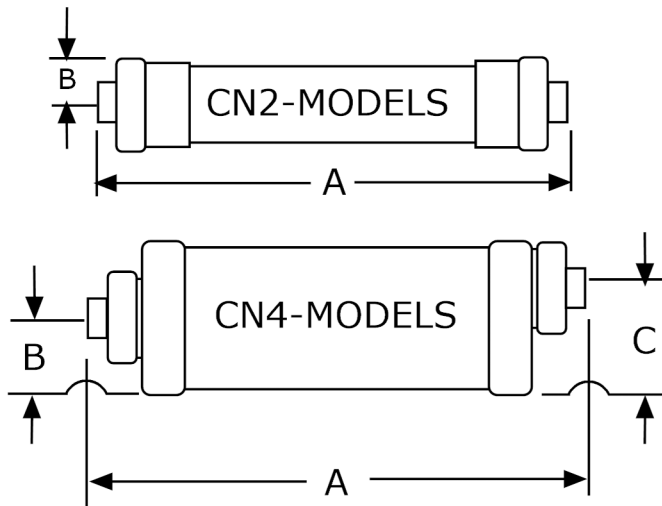




## Neutra-Safe® Condensate Neutralizer

### Tube Style

#### Installation, Operation and Maintenance Manual



Dimensions In Inches				
Model	A	B	C	BTU/h
CN2-220	14-3/4	1-3/8	n/a	220,000
CN2-300	18-3/4	1-3/8	n/a	300,000
CN4-600	12-3/4	2-1/2	3-3/8	600,000
CN4-850	16-3/4	2-1/2	3-3/8	850,000
CN4-1200	18-3/4	2-1/2	3-3/8	1,200,000
CN4-2000	27-3/4	2-1/2	3-3/8	2,000,000

### ⚠ WARNING ⚠

- Neutra-Safe® condensate neutralizers should only be installed by a qualified professional.
- Read all instructions before installing. Perform steps in the order given. Failure to comply could result in substantial property damage, severe personal injury, or death.
- Do not allow flue gases to vent through condensate neutralizer. All condensate drain lines must have a gas trap before entering the neutralization unit. Failure to comply could result in substantial property damage, severe personal injury or death.
- Neutra-Safe neutralizers should only be connected to a condensate outlet that is installed per the appliance manufacturer's instructions. Failure to comply could result in substantial property damage, severe personal injury, or death.

### IMPORTANT

- All piping should be in accordance with relevant building and mechanical codes, as well as any local, state or federal regulations.
- Do not connect more than one appliance to each neutralizer.
- Neutralizer should be installed below all traps and condensate outlets.
- Neutra-Safe condensate neutralizers should always be mounted with a minimum of 1/4" pitch downwards towards the outlet. It is also recommended that the installer maintain a pitch of 1/4" per foot between the condensate neutralizer outlet and the pump or drain.
- Do not use pipe dope on threaded fittings—use only Teflon tape.
- Neutra-Safe condensate neutralizers may **NOT** be installed in the vertical position.
- It is recommended that the neutralizer be installed before the condensate pump.
- All condensate traps should be primed before commencing operation of the appliance.
- Neutra-Safe condensate neutralizer media should be replaced at least once a year or when pH falls below local regulations.

## MOUNTING OPTIONS

- It is recommended that Neutra-Safe condensate neutralizers be installed as close as possible to the outlet of the gas trap.
- Maintain a downwards pitch of ¼" towards the outlet of the neutralizer.
- Care should be taken when selecting mounting hardware. It is recommended that a mounting bracket capable of supporting the weight of a fully charged neutralizer kit be used. This will vary depending on the model.
- Neutra-Safe® condensate neutralizers may be installed on or above the floor so long as a pitch of ¼" per foot is maintained between the neutralizer and the drain or pump.

## INSTALLATION

1. Neutra-Safe condensate neutralizers include built-in unions with ½" NPT tappings at either end. Snap in brackets included in CN2-220 and CN2-300 models for mounting neutralizer.
2. If using PVC pipe, apply Teflon tape to the threads of provided PVC socket adaptors and attach to neutralizer. **Do not over tighten.**
3. Identify suitable location for assembled condensate neutralizer. **Observe direction of flow as indicated on neutralizer.**
4. Position and secure the mounting brackets maintaining a pitch downwards of ¼" towards the outlet.
5. Prime and glue PVC pipe to fittings.  
**Note:** If using flexible tubing, be sure to use hose clamps at barb fittings.  
**Note:** It is recommended that PVC pipe be used wherever possible as this will reduce any risk of tube kinking. Neutra-Safe® provides two ½" MNPT x ¾" PVC socket adaptors for this purpose
6. Route PVC pipe or tubing to drain or pump, maintaining a pitch of ¼" per foot.
7. Models **CN4-600, CN4-850, CN4-1200 and CN4-2000** should have the **OUTLET** positioned between 9 and 10 o'clock or 2 and 3 o'clock position and an atmospheric vent may be needed after the neutralizer.
8. Fill condensate trap with water until flow is established through neutralizer.
9. Observe neutralizer during boiler operation to ensure unrestricted condensate flow.

## MAINTENANCE

1. All service items should be undertaken by a qualified professional.
2. Visually inspect unit for signs of leaking or damage.
3. Neutralizer media should be replaced at least once a year or when pH falls below local regulations. Neutralizer efficiency can only be determined by measuring pH level of condensate outflow.
4. Refer to chart below for appropriate refill kit.

**NOTE: Be careful not to lose the O-rings at either end of cartridge.**

1. Unscrew unions at both ends of neutralizer. If necessary, rotate cartridge to release O-ring.
2. Remove cartridge and dispose of old media. Rinse inside of cartridge. Add replacement media.
3. Check to make sure that O-rings are in place before reinstalling cartridge. **Do not over-tighten.**
4. Prime flue gas trap with a minimum of 1 gallon of water.
5. Observe neutralizer during boiler operation to ensure unrestricted condensate flow.

Neutra-Safe® Replacement Media Kits	
Model #	Recharge Kit #
CN2-220 models	22RCK-S
CN2-300	30RCK
CN4-600	60RCK
CN4-850	85RCK
CN4-1200	120RCK
CN4-2000	200RCK