

# Nelsen Filtration Cartridge Systems™

## **NFS-HF**

*Residential/Light Commercial  
Cartridge Tank System*

## **NFS-HF-PLUS**

*Commercial  
Cartridge Tank System*

*Installation & Maintenance Manual*

**GNE™**  
Water Filtration Simplified™





## ***Important Dealer/Homeowner Information***

Your Nelsen Filtration Cartridge Systems featuring the One™ Water Filtration Simplified Cartridge Tank Filters are precision built, high quality products. These units will deliver filtered water for many years to come, when installed and operated properly. Please study this manual carefully and understand the cautions and notes before installing. This manual should be kept for future reference. If you have any questions regarding your water filter, contact your installing dealer, or the manufacturer at the following: 3250 Barber Rd. Norton, OH 44203.

# *Nelsen Filtration Cartridge Systems<sup>™</sup> Limited Warranty*

Nelsen Corporation and ENPRESS LLC warrants its line of ENPRESS ONE Filtration Simplified™ (ONE) products, (including Cartridge Tank™ and Filter solutions), to be free of defects in material and workmanship for a period of one year from the date of purchase.

This warranty does not cover any equipment purchased for use in applications in which the product is not suited. It is the responsibility of the buyer to determine if a product is suitable for a particular application.

Our obligations under this warranty are limited to the repair or replacement (at ENPRESS's sole discretion) of the failed parts of the water treatment unit manufactured by ENPRESS, and we assume no liability whatsoever for direct, indirect, incidental, consequential, special, general or other damages.

We assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us.

We assume no liability and extend no warranties, expressed or implied, for the use of this product with a non-potable water source or a water source which does not meet the conditions for use described in the owner's guide or performance data sheet for the product.

The warranty provided herein applies, only when used within the product specifications and service life, from the date of installation, beyond which ENPRESS LLC is absolved of any and all liability for any use of the product. There are no other warranties, either of merchantability or fitness, either expressed or implied.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty is not in effect until installer performs (product specific) ENPRESS LLC Product Protocol, when required, for testing, record-keeping and certification of the ONE product prior to installation.

### **THIS WARRANTY EXCLUDES THE FOLLOWING:**

Damage caused by improper installation, operation or care.

Damage caused by chemical attack, environment, accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, oxidizing agents (such as chlorine, ozone, chloramines and other related components), alteration, installation or operation contrary to the printed instructions, or by the use of accessories or components which do not meet ENPRESS's specifications, including the use of a replacement element not manufactured or supplied by ENPRESS LLC. Refer to the specifications section in the Installation and Operating manual for approved application parameters.

Modification or alteration by other than ENPRESS LLC employees.

Rubber type parts and normal wear items i.e. "O" rings, etc...

Any costs of labor or expenses expended in the removal and/or installation of unit, or any surrounding device.

Altering or removing the ENPRESS LLC information label.

Use of non ENPRESS LLC approved cartridges, filters, or replacement parts with the appropriate systems or vessels.

Non-use of supported piping for plumbing connections to In/Out connections.

Service under this warranty is to be provided by the distributor/installer who sold the unit to the user. If the distributor is unable to provide warranty service, contact:

Nelsen Corporation  
3250 Barber Rd.  
Norton, OH 44203

# Table of Contents

---

Pre-Installation Information .....	Page 1
Installation & Bypass Considerations .....	Page 2
Initial Cartridge Installation .....	Page 3
Cartridge Replacement .....	Page 4
Troubleshooting Guide .....	Page 4
Replacement Cartridges .....	Page 5
System Components .....	Page 6

## Pre-Installation Information

---

The Nelsen Filtration Cartridge System has been pre-assembled. The actual cartridge filter may or may not be pre-installed. If the filter needs to be installed, please read the installation procedures for proper instructions to complete the assembly.

**The Dealer** should read this complete guide to familiarize the installer with assembly, installation and operation of the cartridge filter system.

The installation site selection for the Nelsen Filtration Cartridge System may vary depending on the purpose it will serve. This versatile filter may be used as pre- or post-filtration in a water treatment system. Depending on the application, this system can also be utilized as a single tank system. Regardless of application, provisions should be made so that the system is located close to

a drain. Also make sure the installation site has enough overhead clearance for installation and replacement of the cartridges.

Orientation of the system may be vertical or horizontal which ever fits the site application.

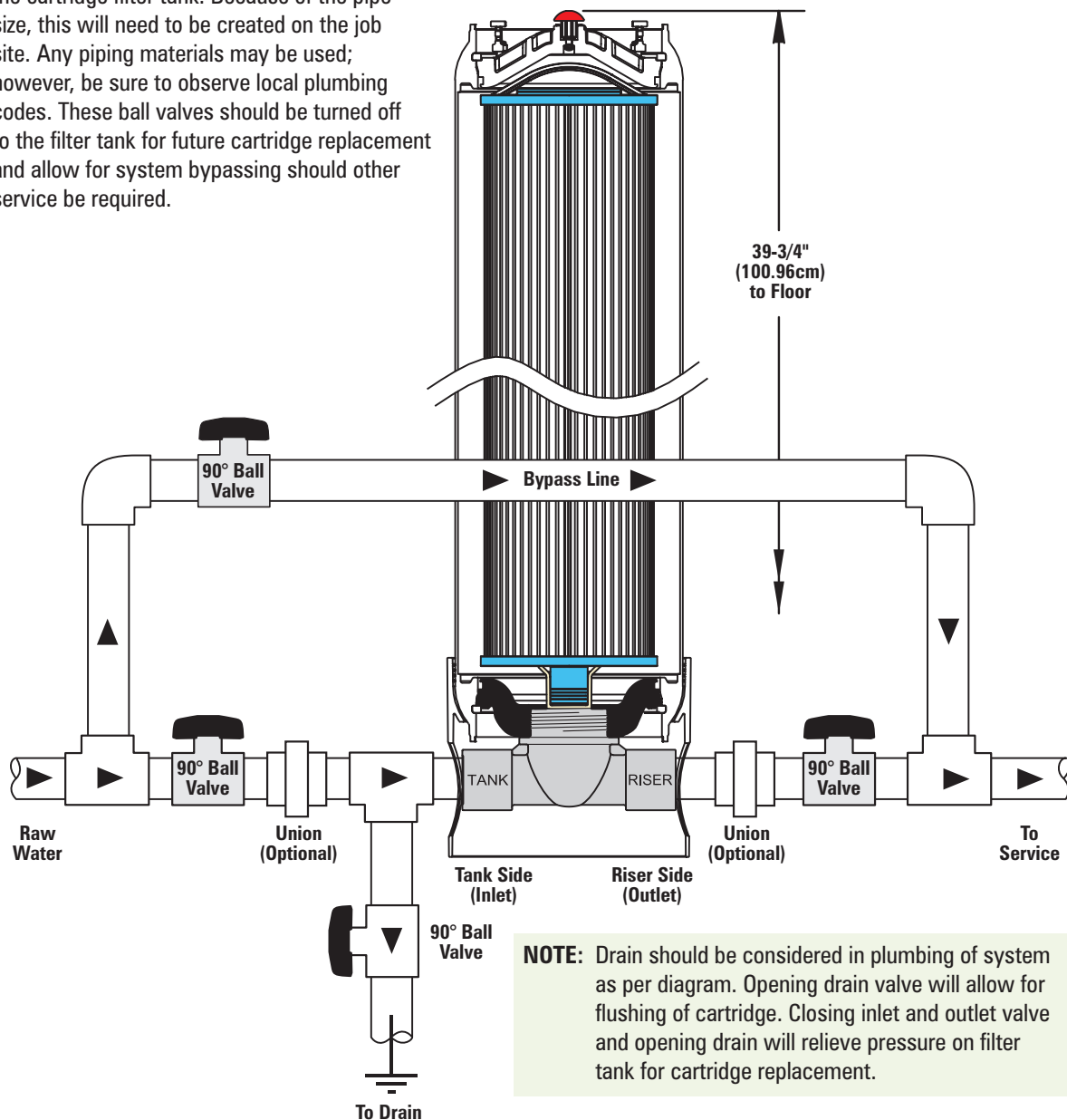
An optional bottom drain is available for these cartridge filter systems to allow rinsing of the cartridge.

When replacing the cartridge, water may spill from the housing; therefore, precautions should be taken to prevent any damage due to water while rinsing or replacing the cartridge.

**Homeowner**, please read operating and cartridge replacement change out instructions.

# Installation & Bypass Considerations

Provisions should be made to install three 90 degree ball valves to create a bypass to the cartridge filter tank. Because of the pipe size, this will need to be created on the job site. Any piping materials may be used; however, be sure to observe local plumbing codes. These ball valves should be turned off to the filter tank for future cartridge replacement and allow for system bypassing should other service be required.



# Initial Cartridge Installation

- 1 Remove cap from cartridge tank (see Removal of Cartridge, steps 1-3) and then push top cap down equally with both hands to unseat retaining ring.

Remove ring from groove by carefully grasping handle and pulling inward then upward. Ring will slide completely out of groove.

(Photos A & B)

PHOTO A



- 2 Remove top of cap from system by lifting up on top handles (Photo C).

PHOTO B



- 3 Remove plastic covering surrounding filter cartridge and discard.

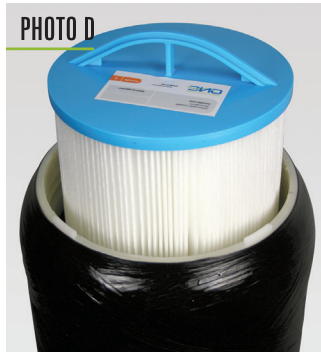
- 4 Lubricate O-rings on cartridge to ensure proper sealing. Do not use pipe dope, Vaseline, oils or other unacceptable lubricants on O-rings. Food grade silicone lubricant is recommended.

PHOTO C

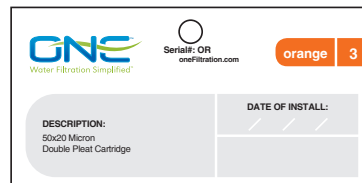


- 5 Insert cartridge into bottom center of tank, assuring proper seal and alignment by pushing down gently until fully seated (Photo D).

PHOTO D



- 6 Attach product description tag (right) to retaining ring handle for future reference (Photo E).



**NOTE:** This tag is found on the new cartridge handle.

- 7 Replace top cap of tank using top handles.



PHOTO E

- 8 Push top cap down to make room for placement of retaining ring in ring groove.

- 9 Insert retaining ring into ring groove, starting at the end opposite of the handle. Using only hands, gently push retaining ring into groove until entire ring is in place and both ends meet in groove section (Photo F).



PHOTO F

- 10 To ensure proper engagement, hold retaining ring by handle and slightly rotate around inner diameter of vessel.

- 11 Slowly turn water supply on to system by first opening inlet valve and pressing red depressurization valve to completely vent tank of trapped air; when water leaks out of depressurization valve, stop pushing and open outlet valve.

- 12 Check system for leaks and ensure system integrity.

# Cartridge Replacement

- 1 Turn off water supply to system by shutting off inlet and outlet ball valves.
- 2 Properly depressurize system by pushing red depressurization button on top cap of system. Keep button pushed until all air or water pressure is completely released. Some water may be released from relief button.
- 3 Open drain ball valve to drain water from the system. This will also make cartridge removal a drier & lighter weight process.
- 4 Push top cap down equally with both hands to unseat retaining ring. Remove ring from groove by carefully grasping handles and pulling inward then upward. Ring will slide completely out of groove (Photos A & B, previous page).
- 5 Remove top cap of system by lifting up on top handles (Photo C, previous page).
- 6 Remove replacement cartridge carefully from bag. Retain bag for disposal of used cartridge.
- 7 Remove used cartridge from system by grasping handle and pulling upward while holding the tank down (Photo E). The old cartridge may be extremely heavy with sediment & water weight. Place in bag and dispose of in accordance with local, state and federal laws and regulations.
- 8 If necessary, open drain and flush system further with a bucket of water to remove final sediment and particles. Once flushed, close drain line.
- 9 Open cold water faucet nearest the system to remove any air pockets in the water lines when turning the system back "online".

PHOTO E



# Troubleshooting Guide

PROBLEM	CAUSE	CORRECTION
Lack of pressure from system	Cartridge fouled out	Replace cartridge
	Exceeded flow rate of cartridge	Substitute cartridge for higher flowing unit Install flow control
	Inlet to tank is plugged	Clean inlet of debris
Cartridge life too short	A. Too small micron rating	A. Choose different size or use multiple tanks
	B. Very heavy loading	B. Check raw water for particles
	C. Excessive water flow through cartridge	C. Check gallons consumed
Plugged drain	A. Not flushed often enough	A. Flush more frequently
Water leak at depressurization	A. O-ring leak	A. Replace depressurization button

# Replacement Cartridges

## Double Pleated Cartridges - (Orange Series)

- NFS-PL10/5-HF ..... *Pleated Filter, 10/5 Micron,*
- NFS-PL20/10-HF ..... *Pleated Filter, 20/10 Micron,*
- NFS-PL50/20-HF ..... *Pleated Filter, 50/20 Micron,*



## NanoAl Double Pleated Cartridges - (Green Series)

- NFS-20NANO-HF ..... *NanoAl™ white*
- NFS-20NANO-AG-HF ..... *NanoAl™ with Agion® Biostat*
- NFS-20NANO-PAC-AG-HF ..... *PAC version of NanoAl™ w/Agion® Biostat*



## String/Meltblown Combination Cartridge - (Yellow Series)

- NFS-2005-SWMB-HF ..... *20x5 Micron String w/Meltblown PP Core*
- NFS-5020-SWMB-HF ..... *50x20 Micron String w/Meltblown PP Core*



## Carbon Block Cartridge - (Blue Series)

- NFS-03-CB-HF ..... *3 Micron Carbon Block High Capacity*
- NFS-20-CB-HF ..... *20 Micron, High Porosity/Low Pres Drop*



## Pleated Polypropylene - Commercial Plus Systems - (Red Series)

- NFS-P1A-PLUS ..... *1 Micron Absolute Pleated PP*
- NFS-P05-PLUS ..... *5 Micron Absolute Pleated PP*
- NFS-P10-PLUS ..... *20 Micron Absolute Pleated PP*
- NFS-ACP-PLUS ..... *Pleated Activated Carbon*



## Meltblown Polypropylene Depth - Commercial Plus - (Purple Series)

- NFS-MB05-HF-PLUS ..... *Meltblown Poly Depth, 5 Micron*
- NFS-MB20-HF-PLUS ..... *Meltblown Poly Depth, 20 Micron*



# System Components

## Common System Components...

- A** ENCT-RING ..... *Filtration Tank Retaining Ring*
- B** ENCT-PRC ..... *Filtration Tank Pressure Relief Cap*
- C** ENCT-TANK-C ..... *8 x 40 Cartridge Tank Enclosure*

## Residential System Components (Bottom of Tank)

- E** ENCT-2.5 ADAPTOR-HF ..... *Filtration Tank Adaptor - 2-1/2"*
- D** ENCT-2.5IC-HF ..... *Filtration Tank Inlet Cap - 2-1/2"*
- F** ENCT-DRAIN1-1/4-HF ..... *Filtration Tank Drain 1-1/4"*

## Commercial Plus System (Bottom of Tank)

- H** ENCT-4.5 ADAPTOR-HF-PLUS ..... *Filtration Tank Adaptor - 4-1/2"*
- G** ENCT-4.5IC-HF-PLUS ..... *Filtration Tank Inlet Cap - 4-1/2"*
- J** ENCT-DRAIN2-HF-PLUS ..... *Filtration Tank Drain 2"*

