

# INITIAL SETUP of " THE HOSE TESTER "

- 1- Locate " The Hose Tester " at one end of the test area close to a water supply, 110 volt electrical supply and a drain. Make sure you have enough room to lay out desired test lengths which could be up to 300' of hose off each discharge port of " The Hose Tester ". Test area should be properly drained because of water required to fill hoses and properly secured so that if a hose fails no one will be hurt.
- 2- Make sure " The Hose Tester " power switch is turned to the "OFF" position.
- 3- " The Hose Tester " is shipped with a female garden hose thread or 1-1/2" NH inlet depending on what was ordered. Connect your supply hose to the inlet side of " The Hose Tester " making sure that you have no leaks.
- 4- Plug the 110 volt GFCI into wall outlet. Keep the cord and plugs out of the water and away from all water sources as you can be shocked or electrocuted. Safety is a must. Practice all common sense rules when dealing with electricity. The GFCI offers some protection but should not be considered as total protection. Any extension cords used should be two wire with ground, 12/3 wire, with the correct plug. All extension cords and electrical connections must be checked each and every time before unit is connected to a power source. Look for damaged cords, cuts, frayed areas and any sign of the slightest damage. If defects are found, have a licensed electrician repair or purchase a replacement cord.
- 5- Attach the proper adapters required to test your hose to the 2-1/2" NH threaded male adapters on each discharge port of " The Hose Tester " .
- 6- Attach up to 300' of hose to any or all of the four discharge ports. Mark each hose coupling at the point where the hose goes into the coupling bowl with a colored caulk so that you can see if the hose has any slippage or pulling away from the coupling bowl during, or after testing. If any slippage is detected the hose should be taken out of service and repaired by trained personnel who have been taught how to repair and recouple fire hose. After all repairs, have been completed, conduct a full service test again on each length of hose.
- 7- At the other end of each test length of hose, after connection to " The Hose Tester ", use a discharge nozzle that is in good repair or properly rated test cap with drain. If nozzles are used they must be brass or aluminum (NO PLASTIC TYPE NOZZLES). Nozzles must be capable of handling the test pressures incurred. If you are using a hose cap make sure that it has a drain petcock. The old standard caps off the discharge side of pumpers are not rated for 500 PSI. Do not attempt to use this type of cap with a hole drilled in it and tapped for a drain petcock. The manufacturer of all test equipment must state that their products can be used at the test pressures you will incur within your department under the worst case scenario.
- 8- This is a good time to replace old dried out and leaking gaskets. Female swivels should show no water leaks at the coupling when put together with only hand tight pressure. Be sure that each length of hose is marked with Acceptance Test Pressure or Service Test Pressure. Each length of hose should be stenciled on the hose body or stamped on the female coupling with a hose length number and your departments initials or name for record keeping and identification. This might also be a good time to stencil each length of hose that was manufactured Prior to July, 1987 with "Service Test ### PSI" so that data does not have to be looked up each year.



PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | [www.akronbrass.com](http://www.akronbrass.com)  
Available in Canada through AKRON MANUFACTURING COMPANY

PHONE: 519.773.8431 | FAX: 519.773.3794

WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damage (included, but not limited to, any loss or profits) from any cause whatsoever. No person has authority to change this warranty.

**A Premier Farnell Company**

**"NFPA 1962 Standard for the Care, Use, and Service Testing of Fire Hose  
Including Couplings and Nozzles - 1988 Edition"**

**Service Test Pressures for Hose Manufactured  
After July, 1987 to Date**

**The Service Test ### PSI and date of manufacture is  
stenciled on each length of hose as per NFPA 1962."**

**Service Test Pressures for Hose Manufactured  
BEFORE July, 1987**

Trade Size in. (mm)	Jackets	New Hose Rated Acceptance Test Pressure psi (kPa)	Service Test psi (kPa)
<b>Lined Industrial, Stand pipe, and Fire Department</b>			
1-1/2 (38) thru 2-1/2 (65)*	Single	300 (2070)	150 (1030)
1-1/2 (38) thru 4-1/2 (114)	Single	400 (2760)	250 (1720)
1-1/2 (38) thru 2-1/2 (65)	Single	500 (3450)	250 (1720)
1-1/2 (38) thru 2-1/2 (102)	Multiple	400 (2760)	250 (1720)
1-1/2 (38) thru 2-1/2 (102)	Multiple	600 (4140)	250 (1720)
<b>Unlined Stand pipe</b>			
1-1/2 (38) thru 2-1/2 (65)	Single		150 (1030)
<b>Lined Forestry</b>			
1 (25) thru 1-1/2 (38)	Single	450 (3100)	250 (1720)
<b>Unlined Forestry</b>			
1 (25) thru 1-1/2 (38)	Single	450 (3100)	250 (1720)
<b>Relay Supply</b>			
3-1/3 (89) thru 4-1/2 (114)	Single	400 (2760)	200 (1380)
5 (127) and 6 (152)	Single	300 (2070)	150 (1030)
<b>Pumper Supply (Soft Suction)</b>			
4 (102) thru 6 (152)	Multiple	400 (2760)	200 (1380)

\* 1-1/2 (38) thru 2-1/2 (65) single jacket hose with a new hose rating  
acceptance test pressure of 300 psi (2070 kPa) shall not be maintained  
on fire apparatus for fire fighting purposes.

# OPERATION of " THE HOSE TESTER "

- 1- Each length of hose to be service tested shall be tested by the standards set forth in "NFPA 1962 Standard for the Care, Use, and Service Testing of Fire Hose Including Couplings and Nozzles - 1988 Edition", hereafter referred to as NFPA 1962.
- 2- Make sure that all the valves on " The Hose Tester " are closed. The motor must be turned "OFF". Open the 1/2" bypass valve which is located at the bottom of the relief valve about 10% (just a slight whisper of water) so that air will be bled from the system. Turn on the water at its source and open the 1-1/2" back flow check valve which is directly in front of the water inlet fitting. All water can be controlled at the back flow check valve, discharge valves and the bypass valve. Remember, the hose tester will move during testing because of the elongation factor of all hoses. Make sure that you have taken this into consideration when placing " The Hose Tester ".
- 3- Connect your hose to one or all of the discharge outlets. Make sure that each length of hose to be service tested has been visually inspected. Any length that does not pass inspection shall be removed from the service test area, repaired as required, and then service tested.
- 4- Now open each discharge valve on the manifold that has a hose connected to a discharge, one at a time, filling each hose line with water. Unscrew the relief valve stem counter clockwise until you feel little or no spring tension on the relief valve. The nozzles or drain petcocks must be open to expel all air from the hoses and " The Hose Tester's " piping. If only two (2) of the four (4) discharges are to be used, you must still crack each discharge valve for a few seconds to be sure that all the air is bled from that part of the discharge manifold. **DO NOT CLOSE** the 1/2" bypass valve at this time. **ALL AIR MUST BE BLED FROM THE TOTAL TEST SYSTEM.** If any hose shows any sign of leakage while filling (unless so designed), or damage of any type, remove from " The Hose Tester " before applying test pressure. When the hose is filled to hydrant pressure close nozzles or petcocks at the end of each hose line to be tested. Now the 1-1/2" back flow valve is to be closed so that you can start to build pressure when the motor is turned on and to prevent the pump from pumping back into your local water supply.
- 5- Turn " The Hose Tester " motor switch to the "ON" position. Pressure will not build because you still have the bypass valve is 10% open and the relief valve fully opened. Close the 1/2" bypass all the way.
- 6- Turn the relief valve stem in a clockwise direction to increase pressure. Slowly increase pressure until the gauge shows the correct test pressure. If you can not obtain test pressure you have leaks that exceed 3.0 GPM in the total system. Locate and fix all leaks. Never slam the 1/2" bypass valve closed. This may cause a surge and spin the pressure gauge. This is an expensive error as the gauge will have to be replaced. The bypass valve should be opened about 1% (just a slight whisper of water) so that the pump head stays cool at all times.
- 7- The test pump will build pressure in a direct proportion to the size and amount of hose you have connected to the tester, if you have 1200 feet of 5" relay hose connected it will require some time to build to the service test pressure of 150 PSI or 200 PSI.
- 8- Remember that all fire hose has an elongation factor of 2-8%. As an example, a 300' lay of 5" rubber relay hose with a 8% elongation factor at test pressure, the hose will elongate approximately 24'. The 3 GPM pump has to pump this much more water into the hose before it starts to build towards the test pressure. If you had four (4)-300' lays of hose, about 96' of new hose is added after elongation. It takes some time, give the machine time to pump the water, and bring the hose up to test pressure.



PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | [www.akronbrass.com](http://www.akronbrass.com)  
Available in Canada through AKRON MANUFACTURING COMPANY

PHONE: 519.773.8431 | FAX: 519.773.3794

WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damage (included, but not limited to, any loss or profits) from any cause whatsoever. No person has authority to change this warranty.

**A Premier Farnell Company**

- 9- While bringing the hose up to the desired "Service Test Pressure" the operator must always be aware of what is happening. One hand should always be on the motor switch in case of a failure. He should be watching the total testing area and each length of hose being tested. At the first sign of water leakage " THE HOSE TESTER'S " should be turned off and the problem, or problems, should be corrected.
- 10- When everything is running smoothly, and the operator is satisfied that all safety procedures have been followed, you may continue testing. " THE HOSE TESTER'S " pump has a rated capacity of about 3.0 Gallons Per Minute. You will have NO HIGH WATER VOLUME SURGE and most of all, NO WILD LINES, if a hose ruptures or you have noticeable slippage at a coupling. If a rupture occurs, close that manifold discharge valve and bring the other lines being tested back up to desired test pressure, or shut the motor off to stop all testing.
- Note: When testing 4" or 5" hose it has proven to be much quicker to fill all the hoses from a hydrant so that the hose can be brought up to or close to the service test pressure and to proved the volume of water and pressure required for the initial elongation of the hose. After filling to hydrant pressure, close the back flow valve, turn on the pump and continue to pressurize the hoses. This will still require time to finish the total elongation of the hose and pump up to test pressure. Remember you have a 3 GPM twin piston pump.
- Note: When testing short lengths of hose 50 - 100', one at a time and there is a sudden rupture of the hose it has been reported by one department that "THE HOSE TESTER" can have some real erratic movement and actual jump or move 1-3 feet, make sure that all personnel stand clear.

## NOTICE - SPRAY WASHER

- 1- You will ever develop the pressure and volume of the high pressure washer that you get at any wand type of car wash. The reason is very simple. At the car wash you have a 70 GPM pump @ 850 PSI not a 3 GPM pump @ 500-600 PSI. Also you only have a nozzle that flows 2 GPM. The Spray washer is for maintenance and not high pressure power blasting, it is for general clean up and a handy wash down tool.
- 2- In order to educt soap or wax the spray wand tip must be turned to the low pressure side, you will get a low pressure spray as the tip is rotated. You can look at the clear plastic tube and see the soap or wax being picked up. Our spray wand and tip must be matched just like the 95 GPM nozzle and 95 GPM foam eductor. If you do not have a matched system you will not educt the soap or wax products. As you turn the spray tip you are matching the tip with the eductor.



PHONE: 330.264.5678 or 800.228.1161 | FAX: 330.264.2944 or 800.531.7335 | [www.akronbrass.com](http://www.akronbrass.com)  
Available in Canada through AKRON MANUFACTURING COMPANY  
PHONE: 519.773.8431 | FAX: 519.773.3794

WARRANTY AND DISCLAIMER: We warrant Akron Brass products for a period of five (5) years after purchase against defects in materials or workmanship. Akron Brass will repair or replace product which fails to satisfy this warranty. Repair or replacement shall be at the discretion of Akron Brass. Products must be promptly returned to Akron Brass for warranty service.

We will not be responsible for: wear and tear; any improper installation, use, maintenance or storage; negligence of the owner or user; repair or modification after delivery; damage; failure to follow our instructions or recommendations; or anything else beyond our control. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OTHER THAN THOSE INCLUDED IN THIS WARRANTY STATEMENT, AND WE DISCLAIM ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Further, we will not be responsible for any consequential, incidental or indirect damage (included, but not limited to, any loss or profits) from any cause whatsoever. No person has authority to change this warranty.

**A Premier Farnell Company**