Installation Instructions for C-1000 Series Yard Hydrant

C-1000 Series, CNL-1000 Series & CBNL-1000 Series
Almost NO Reason to Ever Dig up a Hydrant to Fix a Leak
Under no circumstances should Merrill Manufacturing™ Yard Hydrants drain back into well or drinking water supplies!
*Merrill Manufacturing™ disclaims all liability of any kind and voids the hydrant warranty for installations of this product where it can or could drain back into a drinking water supply.

Step 1: First be sure line on which hydrant is to be installed has been thoroughly flushed to wash out foreign particles, rocks and sand.

Step 2: Be sure the hydrant is installed with provision for drainage below frost line.

- If hydrant is installed in a pit, the pit must have an open bottom or some form of drainage.
- If hydrant is buried in the ground, a few tile can be laid in gravel or coarse material to form a field system for the drain.
- If hydrant is buried in ground and no tile are used, be sure to put a quantity of gravel, crushed rock or some coarse material around the drain of the hydrant. This will permit faster and better drainage.

Step 3: Important - If hydrant is buried in the ground it is a good idea to put a brick or large stone under the hydrant, because when the hydrant drains and the subsoil becomes wet, it will allow the hydrant to settle and thus put a strain on the pipe to which it is connected. A brick or stone would carry this weight.

Step 4: To connect the hydrant to the line, just turn it onto the male thread on the bottom of the valve body, for which it is intended.

- **Caution:** When the hydrant is tightened, be careful that it is not tightened so tightly that the hydrant head or valve body will be screwed further onto the pipe and thus change the adjustment of the hydrant. If this should happen, adjustment on the hydrant stem rod can be made by turning the two nuts, refer to the adjustment instructions below.

Step 5: Important - Before backfilling the trench, turn on the water. Then turn on the hydrant by raising the handle to let the water flow. If the hydrant is not working properly, refer to the adjustment instructions below. Merrill Manufacturing™ will not accept any responsibility for digging up the hydrant if installer fails to flush out the water line before attaching hydrant to water line and to check hydrant for proper operation before backfilling the trench.

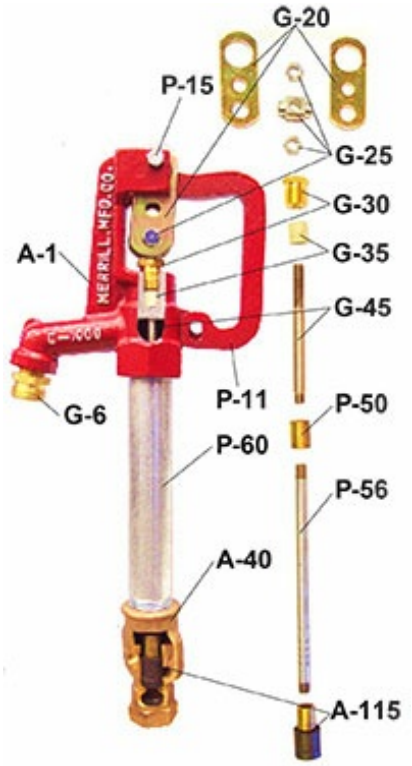
WARNING: If the ground freezes at or below the bottom of this hydrant, your warranty is void and damage due to improper installation or act of nature is not covered by manufacturer.

CAUTION: Use wrench on valve body and fitting only! Do not use wrench on this stand pipe! Additional tightening or loosening will change adjustment of hydrant and restricts water flow or may make the hydrant inoperative.

CAUTION: If the hose is attached to nozzle of hydrant when hydrant is shut off, back siphoning can occur if end of hose is left in container of liquid. The end of the hose must be left open to the air so the hydrant can drain back.

C-1000 Yard Hydrant Adjustment Instructions

Adjusting the plunger in the lower valve body



- To lower the plunger assembly into the valve body, take the P-15 bolt out of the head casting and remove the handle and G-20 draw straps (Note: draw straps are bent inward, which applies pressure on the handle when opening the hydrant). With two wrenches, loosen the (2) 9/16" nuts on each side of the G-25 pivot connector. To lower the plunger, turn the top nut upward, only one thread, then tighten the lower nut upward toward the G-25 pivot connector (or raise the G-25), then tighten the top nut.
- To determine if the water is not draining out of the stand pipe, turn the hydrant on and let the water flow. Then push down the handle to close the hydrant with a cup of water covering the nozzle. if the water in the cup siphons back through the hydrant, the plunger is in the correct position. If the water does not siphon out of the cup, then adjust the plunger in the same way as stated above. Then check to see if the water siphons out of the cup after adjustment.

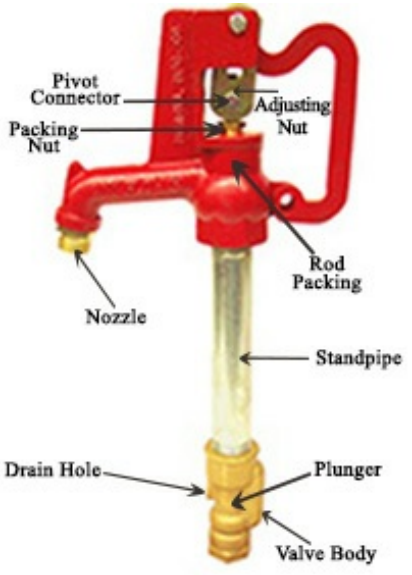
C-1000 Yard Hydrant Maintenance Instructions

In maintenance, nothing is needed - but, a few drops of oil occasionally on the cam of the lever will prolong its life.

To replace any valve or plunger parts, **NO NEED TO DIG UP THE HYDRANT**, first turn off water pressure, then simply mark the threads on the pipe by putting a piece of electrical tape around the pipe just below the hydrant head and unscrew entire head casting from stand pipe and pull up stem and valve parts. Then thread head casting back to same mark on pipe after parts are replaced.

C-1000 Yard Hydrant Troubleshooting
Almost NO Reason to Ever Dig up a Hydrant to Fix a Leak

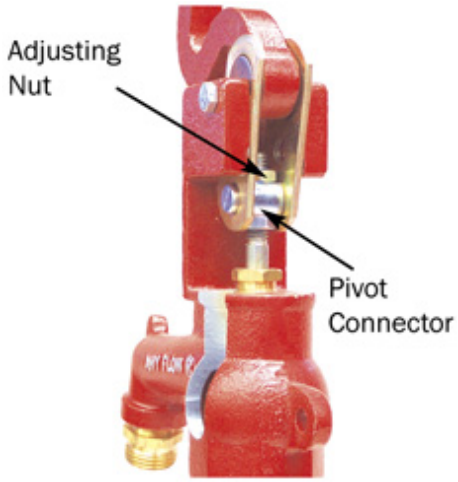
Leaking out of the packing



First tighten the packing nut a half turn while moving the handle up and down a few times. If this does not completely stop the leaking, turn the packing nut another half turn while moving the handle up and down. Sometimes this may have to be repeated again and again, depending on how long the leak has gone without being fixed. Small adjustments are much better than turning the nut a full turn or more right away, as that may not be necessary. If the adjustments do not cure the leak, a new packing piece must be installed under the packing nut. There is no reason to shut off the water to do this adjustment.

Leaking out of the nozzle

This would mean the plunger needs to be lowered. To do this, the adjusting nut above and below the pivot connector need to be raised one turn. This may need to be repeated again to completely stop the leak. Smaller adjustments are better than adjusting several turns at once, as it may not be necessary. If three or so adjustments does not fix the leak, the plunger must be replaced. Most likely it is damaged or worn excessively.



Replace the Plunger

To replace the plunger, a piece of tape needs to be put around the standpipe just under the hydrant head and mark the location of the nozzle. Turn off the water supply and unscrew the head from the standpipe and pull out the inside rod and plunger. Replace the plunger, lubricate and install back in standpipe. Tighten head so that the head touches the tape and likely no further adjustment will be necessary. Test to make sure it is draining properly by holding your hand over the outlet nozzle right away after shutting off hydrant for a few seconds. Remove hand and you should hear a sound of air rushing into the hydrant. This means it is draining properly and should be in good working order. If it is not, do the adjustment as described above.

Leaking out of the Drain Hole

What you need to know is if it is leaking in the "off" position or the "on" position. These are two completely different adjustments.

"On" Position Leak

If it is leaking when in the "on" position, the plunger may be too low which means the plunger is not coming up far enough to shut off the drain hole when the hydrant is running. Making small adjustments at a time is more critical in this situation. Move the adjustment nuts down a half turn only. By going too far you will raise the plunger so much it will not shut off when the handle is down, causing it to leak out of the nozzle. If the leak does not stop, the plunger could be worn or damaged and needs to be replaced.

"Off" Position Leak

If the leak continues when the hydrant is in the "off" position, the plunger needs a slight adjustment down. This means that you need to raise the adjustment nuts up a half turn to make the plunger go down. Again, if two or more adjustments does not fix the problem, the plunger needs to be replaced.

The only circumstances in which a hydrant would need to be dug up would be damage to the valve body or standpipe due to freezing weather or aggressive soil conditions and it rusted through. No amount of adjusting will fix this and those parts would need to be replaced. There is no reason to ever dig up a hydrant to fix a leak. It is a 100 to 1 odds that a hydrant needs to be dug up to be fixed.

Consult with factory if system pressure is over 100 psi before installation of this product.