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INSTALLATION INSTRUCTIONS TO CONVERT
H28LT-NGE-PE HEATER TO A H28-NGE-PE HEATER

PACKING LIST

<u>QUANTITY</u>	<u>DESCRIPTION</u>
1	H28 Ring Burner
1	1/4" - 1/4" NPT Orifice
1	1/2" NPT x 6" pipe
1	4" OD Screen
2	3/8" NPT Locknut
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NOTE: Before starting conversion, check to see if all items called out on packing list are in kit.

To convert your H28LT-NGE-PE heater to a H28-NGE-PE heater perform the following steps:

1. Remove spark plug wire from spark plug and remove flame probe wire from flame probe.
2. Remove spark plug from burner. Remove flame probe by removing 5/16" bolt and lockwasher which holds flame probe mounting bracket to burner.
3. Remove present burner by removing nuts, lockwashers, and flatwashers, from carriage bolts that secure burner to heater. Then lift burner out of heater.
4. Remove orifice assembly from 9" long 1/2" NPT pipe. The 9" long 1/2" NPT pipe is part of the heater plumbing that passes through the heater housing. (Note: Orifice assembly includes orifice, burner, inlet cone sealing adaptor, 3 1/2" long 3/8" NPT pipe, and 90° reducer elbow).
5. Loosen square headed setscrew securing the heater plumbing where heater plumbing passes through the heater housing. Then remove 9" long 1/2" NPT pipe from rest of heater plumbing.



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6. Thread 6" long 1/2" NPT pipe, which is provided in conversion kit. into heater plumbing. The 6" long pipe is to be threaded into the same place as the previous 9" long pipe was removed from. Do not forget to use some type of pipe threading compound on pipe threads before threading pipe to heater plumbing.
7. Remove burner inlet cone sealing adaptor from orifice assembly.
8. Change orifice for high temperature drying depending on which fuel is being used.
 - a. If natural gas is being used remove orifice from orifice assembly.
 - b. If propane is being used replace 1/8" - 1/4" NPT orifice with 1/4" 1/4" NPT orifice in orifice assembly. The 1/4" - 1/4" NPT orifice is provided in conversion kit.
9. Add 4" O.D. screen and two locknuts to orifice assembly. First, thread one locknut onto 3/8" NPT pipe at same end as orifice goes. Second, slip 4" O.D. screen on the 3/8" NPT pipe, and up against first locknut. Third, thread second locknut on to 3/8" NPT pipe. Tighten the second locknut up against screen, so the screen is securely fastened.
10. Thread orifice assembly on to 6" long 1/2" NPT pipe. When the orifice assembly is tight on the pipe point the orifice towards the air outlet end of heater. Do not forget to use some type of pipe threading compound on pipe threads before threading orifice assembly to pipe.
11. Move nuts that remain on carriage bolts, after burner was removed, down the carriage bolts so there is a distance of 4 1/2" from end of carriage bolts to nuts. Add a flat washer to each carriage bolt if a flatwasher is not already on the bolt.
12. Lift high temperature burner into heater such that the premix cone of burner is on the same side of heater as orifice assembly and the premix cone is pointing towards the air inlet end of heater. The slip carriage bolts into mounting brackets of burner. Add a flatwasher, lockwasher, and nut to each carriage bolt after slipping carriage bolt into burner mounting bracket.
13. Center high temperature burner in heater so there is an equal distance between burner and heater housing all the way around. To adjust for centering move nut and flatwasher that are on the outside of burner mounting bracket on each carriage bolt up or down. After burner is centered securely tighten burner in place by tightening down nuts that are on the inside of burner mounting brackets on each carriage bolt.



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14. Center orifice into the premix cone by moving 6" long pipe in and out of heater. When orifice is centered, tighten square headed setscrew used to secure heater plumbing where heater plumbing passes through heater housing. If screen on orifice assembly is squashed up against the premix cone, loosen nuts securing burner and move burner back away from screen as far as possible. Then retighten nuts securing burner and recheck the centering of burner and the centering of the orifice.
15. Install spark plug on burner. Install flame probe on burner by using 5/16" bolt and lockwasher which holds flame probe mounting bracket to burner. For adjusting flame probe see adjustment section of heater installation and operation manual.
16. Reconnect spark plug wire to spark plug and make sure the wire is securely fasten. Reconnect flame probe wire to flame probe.