

**REVISIONS**

REV.	DESCRIPTION	DATE	APPRVD.

**Notes:**

In the event of a power loss, the Noritz unit will not have power to operate the 'internal freeze prevention' electric heater, so water would have to be drained from the system (unit & plumbing) manually to prevent any type of freezing.

An additional method to prevent freezing to the unit, would be by having the solenoid valves in place and wired to 110V supply, water will automatically be supplied to the Noritz only when there is power and water will automatically be drained from the system upon power loss or power outage.

1. 3/4" or bigger Solenoid Valve, normally open, closes upon 110V power loss.

2. Up to 3/4" Solenoid Valve, normally closed. Opens upon 110V power loss.

3. Size the pump to provide a maximum of 2 GPM through the system at 10 ft of head plus piping losses. Adjust the flow using a globe valve and verify the flow rate using the maintenance monitors.

4. Pump Control Signal is Noritz's preferred method to control the recirculation pump. For pumps larger than 85W, relay connection should be used. If Noritz pump control is not used, an aquastat may be used to control pump.

5. Use aquastat if unit isn't controlling pump. Wire aquastat to pump according to "Circulation Pump to Aquastat Wire Diagram (PAWD.pdf)." Set the aquastat to 10°F below the set output temperature.

6. Noritz recommends the use of Isolator Kit (IK-WV-8) with installation. Connections are available in Threaded and Sweat. These kits include an integrated shut-off and service valve with unions and a pressure relief valve.



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**MODEL:**  
NR111 Series

**APPLICATION:**  
Domestic Hot Water  
Recirculation  
Additional Freeze Protection









**DRAWING NUMBER:**  
(9a)NR111

**DRAWING DATE:**  
November 17, 2009

**Noritz Accessories**

-  RC-7649M (Remote Controller)
-  RC-CORD10 (10' Remote Controller Cord, optional in 26')
-  VC-4-1 (Outdoor Vent Cap for -SV model only)

*Note: This diagram is for reference only. Installation must comply with State and Local Code, all gas and water pipe must be sized correctly to specific length, according to accepted engineering methods or the UPC Code for Noritz Water Heaters to operate correctly.*

-  Shut-off Ball Valve
-  Check Valve
-  Union
-  Pressure Relief Valve (Watts 174A, Zurn P3000BR, Cash Acme F-82)
-  Aquastat (Honeywell Model #L6006A or L6006C)
-  Pump
-  Mixing Valve
-  Thermal Expansion Tank