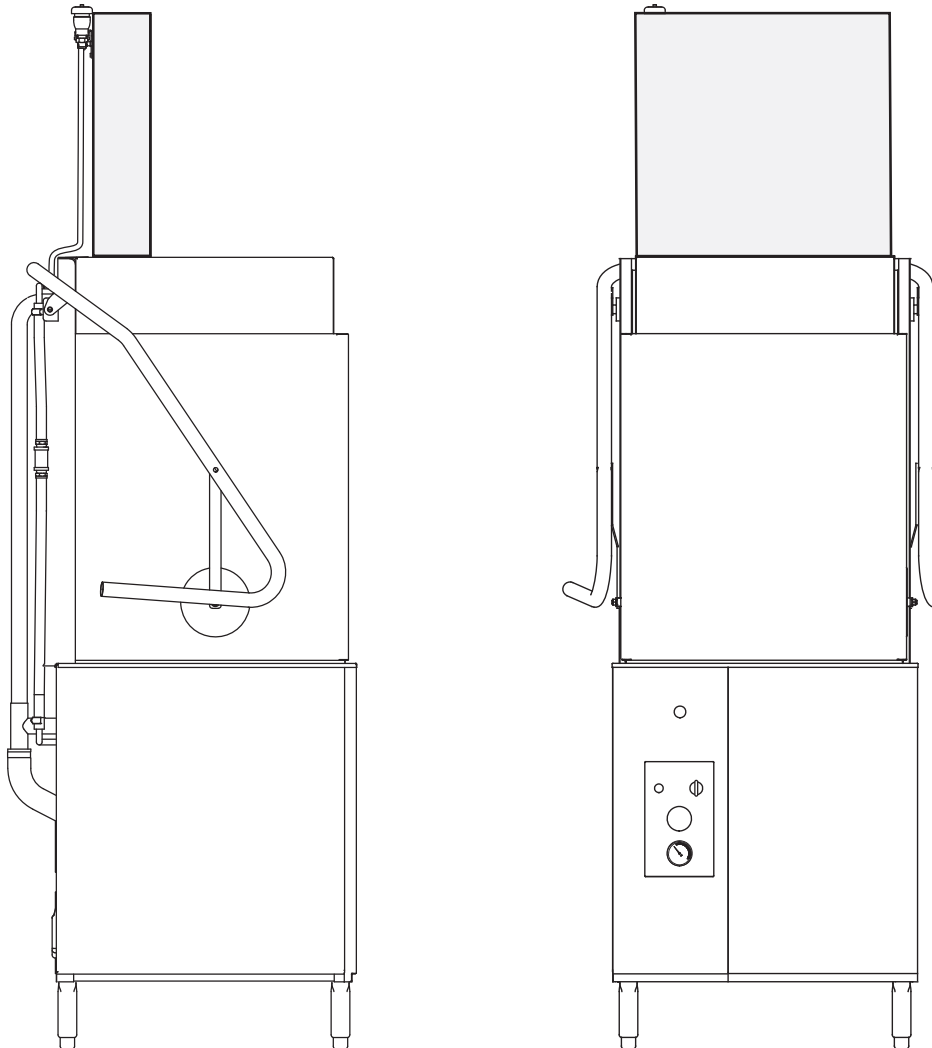


# Tall Hood-type Dishwashers

## Ventless Heat Recovery Option Installation Instructions



**Models:**  
DH5000T, MDHHD  
**VHR**  
Ventless Heat Recovery



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**Manual P/N 115746 rev.—**

3765 Champion Boulevard  
Winston-Salem, NC 27105  
(336) 661-1556 Fax: (336) 661-1660  
Toll-free: 1 (800) 858-4477  
service@championindustries.com

2674 N. Service Road, Jordan Station  
Ontario, Canada L0R 1S0  
(905) 562-4195 Fax: (905) 562-4618  
Toll-free: 1 (800) 263-5798  
service@moyerdiebellimited.com

Printed in the USA



# Revision History

We reserve the right to make changes to this manual without notice and without incurring any liability by those changes. Equipment owners may request a revised manual, at no charge, by calling 1(800) 858-4477 in the USA or 1(800) 263-5798 in Canada.

<b><i>Revision Date</i></b>	<b><i>Revised Pages</i></b>	<b><i>Serial Number Effectivity</i></b>	<b><i>Revision Description</i></b>
3.1.16	All	D160113179	Released first edition



# STOP

**THE VHR ASSEMBLY MUST BE INSTALLED BEFORE THE DISHWASHER IS SET IN ITS PERMANENT LOCATION AND BEFORE THE UTILITIES ARE CONNECTED.**

- The VHR Unit is shipped with the dishwasher in a separate cardboard carton.
- Only qualified personnel familiar with commercial dishwashers should work on this equipment. The installation of the dishwasher must comply with all local electrical, plumbing, health, and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, or the Canadian Electrical Code (CEC), Part 1, CSA C22.1.
- Refer to the Installation, Operation, Cleaning, and Maintenance Manual, P/N 115744, for the dishwasher installation instructions. This manual is located in the literature package attached to the front of the machine.



## **WARNING:**

**DO NOT CUT OR MODIFY THE BLUE HOSES.**

**DO NOT SWITCH HOSES. THE HOSES ARE MADE TO THE PROPER LENGTHS AND ATTACHED TO THE VHR UNIT CORRECTLY.**

**IMPROPER HOSE INSTALLATION WILL NOT BE COVERED BY THE DISHWASHER WARRANTY.**

# Installation Statement

DH5000, DH5000T, and MDHHD Dishwashers with a Ventless Heat Recovery (VHR) Option.

## Installation Codes

Although local codes for dishwasher hood systems may vary from one municipality or state to another most are derived from the National Fire Protection Association, NFPA Code 96 or the International Mechanical Code. Section 507.3 of the International Mechanical Code, (2015 states, "Type II hoods shall be installed above dishwashers and appliances that produce heat or moisture and do not produce grease or smoke as result of the cooking process, except where the heat and moisture loads from such appliances are incorporated into the HVAC system design or into the design of a separate removal system". The requirement does not distinguish between machine type, heat type or operational temperature.

## Code Compliance

A code official having jurisdiction may ask the HVAC contractor to demonstrate that the heating and air conditioning system for a new or existing installation will accommodate the heat and moisture produced by a DH5000, DH5000T, or MDHHD-D utilizing the VHR option. The information contained in this document explains the operation to assist the code official & the HVAC contractor.

## Frequently Asked Questions

**Question:** Do I need to get approval for my installation?

**Answer:** A code inspector may need to approve the installation before the dishwasher is installed to ensure that all local codes and regulations have been followed. Contact your local building inspector for details on the applicable codes, regulations, and inspection procedures.

**Question:** What types of information might I need for approval?

**Answer:** A code inspector may request a report from an HVAC contractor showing that the building design will handle the heat output of the machines equipped with the VHR option. Table 1 below provides the latent and sensible heat output information that the contractor needs to make its report.

REMOVAL SYSTEM	HEAT OUPUT (BTU/HR)	
	Latent	Sensible
Ventless Heat Recovery	13,000	5,600

Tabel 1: Latent and Sensible Heat Output

A code inspector may also request information about the dishwasher. You can obtain DH5000, DH5000T or MDHHD specification sheets at: <http://www.championindustries.com/products> You may also call USA Champion Sales Dept. at: 1-800 532-8591, M-F 8-5 EST, or Canada Champion Moyer Diebel Sales Dept. at: 1-800 263-5798, M-F 8:30-4:30. In addition, you may call the National Service Dept.: IN USA: 1-800-858-4477 IN CANADA: 1-800 263-5798

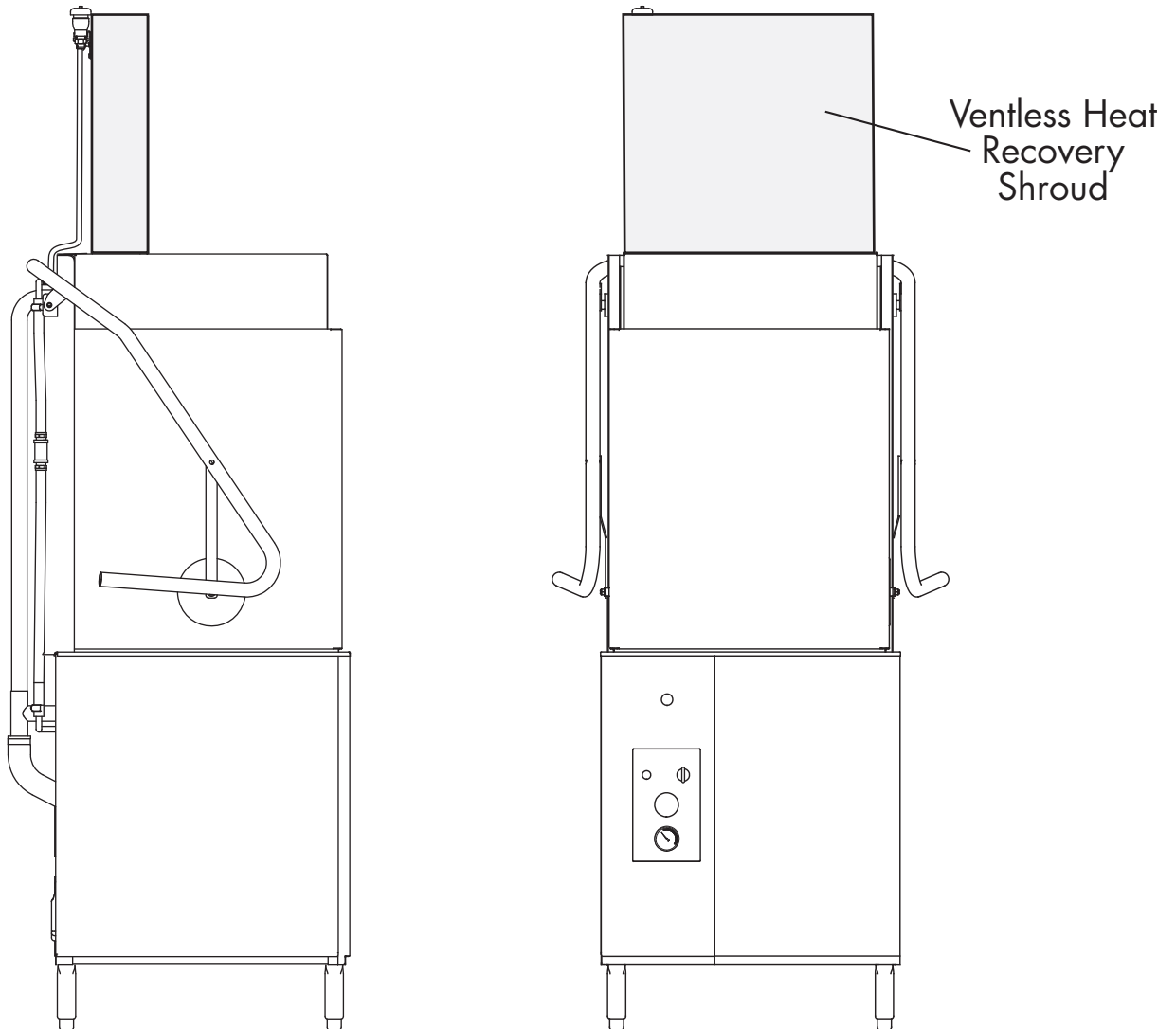
**Question:** What are the plumbing requirements for the condensate removal option?

**Answer:** The condensate removal option requires a cold water supply that provides a minimum flowing pressure of 45 PSI at the dishwasher before adjusting the flowing pressure on the machine to 20-22PSI. The cold water supply temperature must be between 55-75°F/13-34°C for proper operation.

### Model DH5000, DH5000T, MDHHD Operation

The operation of the Ventless Heat Recovery (VHR) is described below.

The VHR a high temperature hot water sanitizing dishwasher with an extended shroud that condenses the steam and reclaims the heat from the operation of the dishwasher, significantly reducing the heat output of the dishwasher into the dish room. Cycle times are user-defined from 1, 1.5, 4, or 6 minutes.



VHR Option

## Mount the VHR Unit on Top of the Dishwasher.

Refer to Fig. 1 and follow Steps 1-4 below.

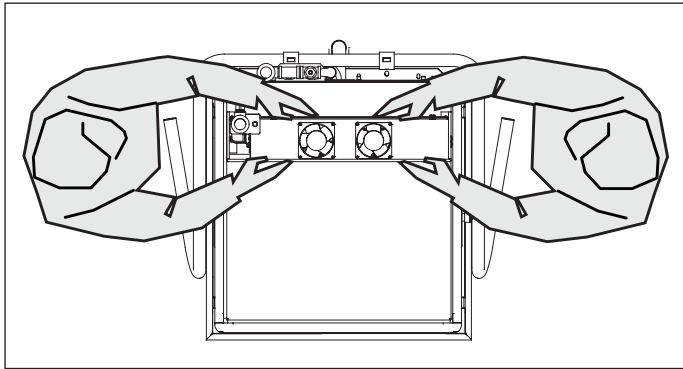


Fig. 1 - Two people must place the VHR on top of the dishwasher.

- 1** TWO PEOPLE MUST PLACE THE VHR UNIT ON TOP OF THE DISHWASHER. FOLLOW ALL SAFETY PROCEDURES WHEN LIFTING THE UNIT.
- 2** POSITION THE DISHWASHER NEAR ITS PERMANENT LOCATION. DO NOT CONNECT THE UTILITIES TO THE DISHWASHER.
- 3** REMOVE THE VHR UNIT FROM THE BOX AND INSPECT FOR DAMAGE. REMOVE THE WHITE PROTECTIVE FILM FROM THE VHR UNIT.
- 4** CHECK THE VHR BLUE HOSE CONNECTIONS AND TIGHTEN IF NECESSARY. POSITION THE HOSES OUT OF THE WAY PRIOR TO LIFTING THE UNIT. DO NOT CUT OR DISCONNECT THE HOSES.



**NOTE:**

Refer to Fig 2. at right and notice the location of the dishwasher duct opening and the four VHR retaining nuts.

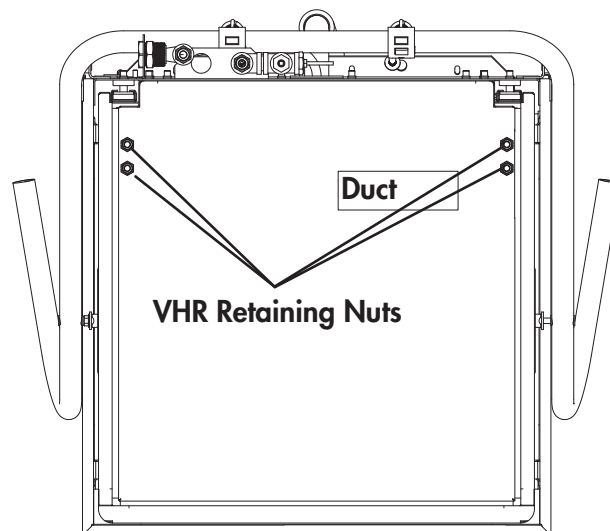


Fig. 2 - Dishwasher duct and retaining nuts are located on top of the machine.

Refer to Fig. 3 and follow Steps 1- 4 below.

- 1** REMOVE BUT DO NOT DISCARD THE FOUR RETAINING NUTS ON TOP OF THE DISHWASHER. CHECK THE DISHWASHER DUCT FOR DEBRIS.
- 2** CHECK THE VHR DUCT FOR DEBRIS. THE VHR DUCT MUST FIT INSIDE THE DISHWASHER DUCT AS THE VHR UNIT IS LOWERED INTO POSITION.
- 3** LIFT THE VHR UNIT ABOVE THE REAR OF THE DISHWASHER HIGH ENOUGH TO CLEAR THE DISHWASHER PLUMBING SHOWN IN FIG. 3.
- 4** LOWER THE VHR UNIT UNTIL THE VHR DUCT FITS INSIDE THE DISHWASHER DUCT AND THE RETAINING STUDS ALIGN WITH THE VHR BASE. SQUARE THE VHR UNIT WITH THE DISHWASHER AND REINSTALL THE RETAINING NUTS REMOVED IN STEP 1 ABOVE.

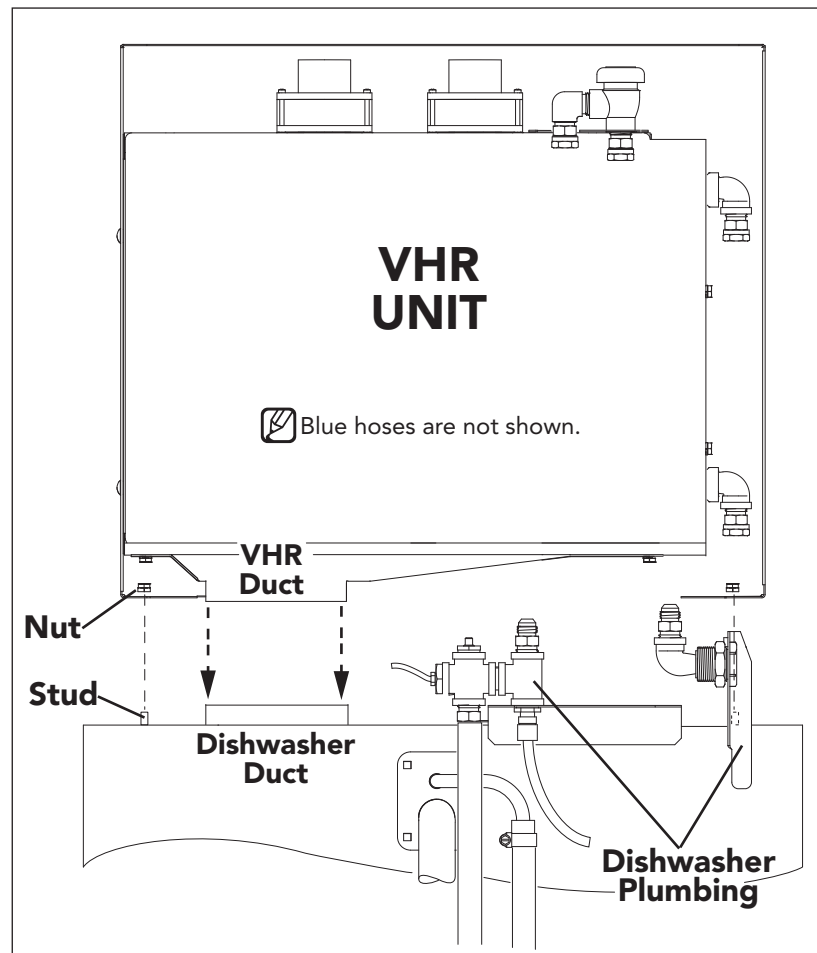


Fig. 3 - The VHR Duct fits inside the Dishwasher Duct.

## Connect the Hoses and Fans

Refer to Fig. 4 and 5 below and follow Steps 1-4 on the next page.

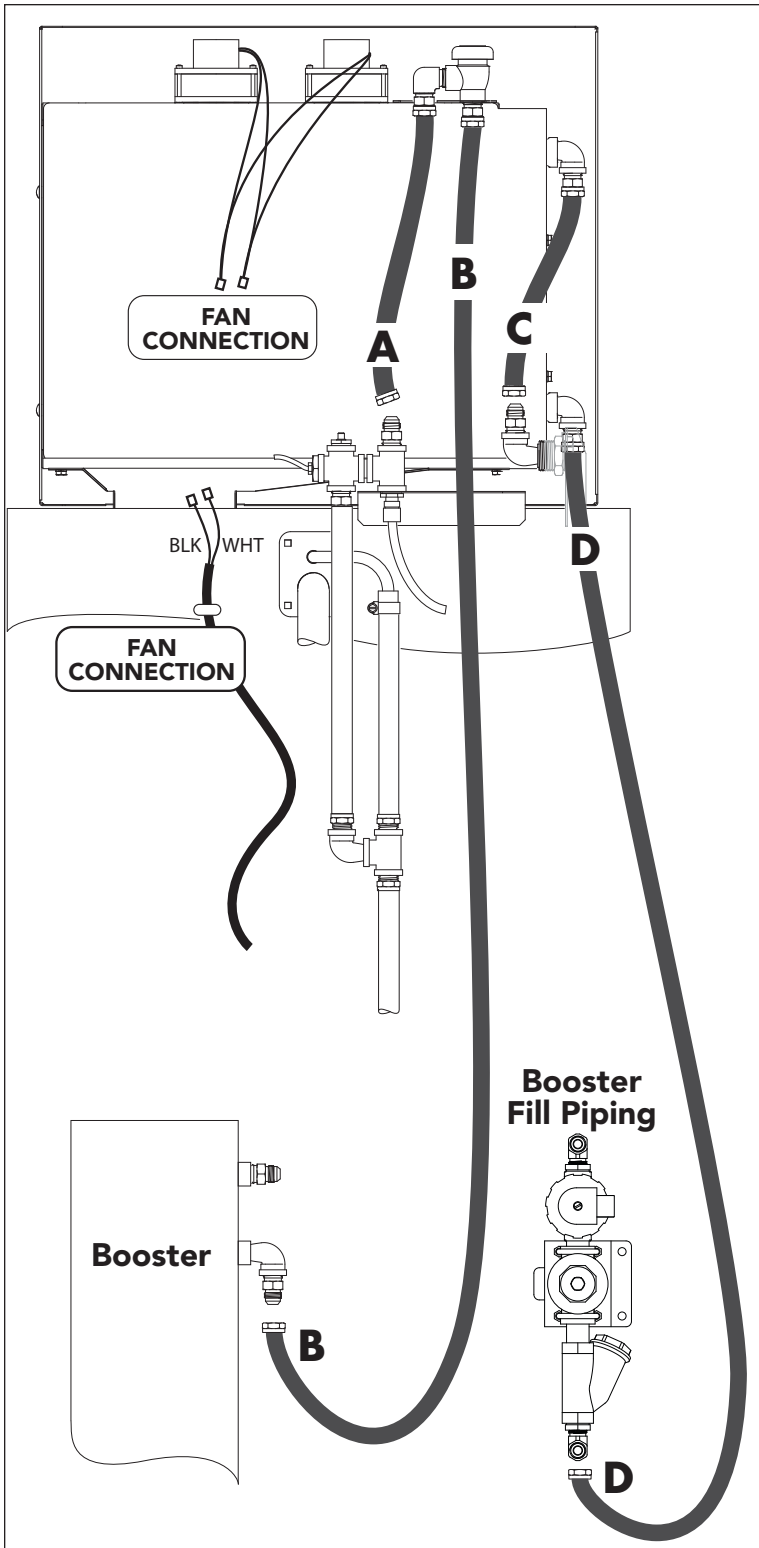


Fig. 4 - Connect the hoses and fan as shown.

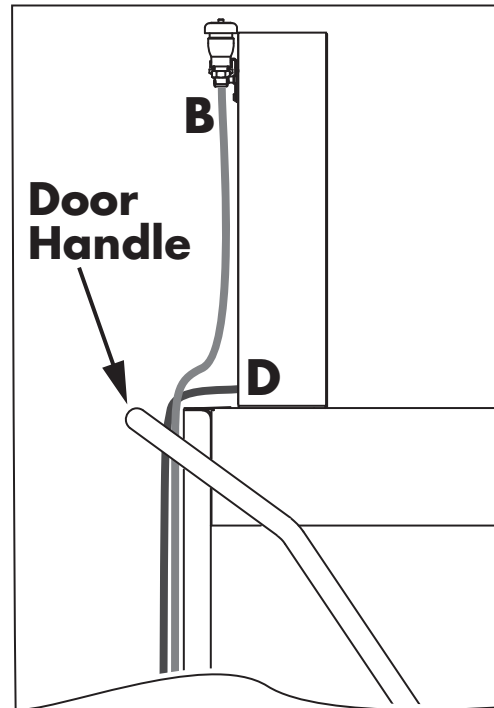


Fig. 5 - Make sure hoses (B) and (D) are routed behind the door handle.



**NOTE:**

Refer to Fig 4. and note the letters: A, B, C, and D in the diagram. Labels bearing these letters are attached to the VHR hoses and their corresponding dishwasher connections to ensure the hoses are connected correctly.

The fan wires are marked with a red "FAN CONNECTION" label. The dishwasher is equipped with a flexible cord located on the back of the dishwasher. The cable is marked with a red "FAN CONNECTION" label as well.

Follow the Steps below to make the connections.

**1 DO NOT CUT OR SWITCH ANY HOSE.**

**2** ROUTE HOSES (B) AND (D) BEHIND THE DOOR HANDLE AND DOWN TO THE BOTTOM OF THE DISHWASHER. MAKE SURE THE HOSES DO NOT INTERFERE WITH THE DOOR SPRINGS OR ANY OTHER COMPONENTS.

**3** MATCH THE VHR HOSE LABEL WITH THE LABEL ON THE DISHWASHER . MAKE SURE THE LABELS MATCH BEFORE CONNECTING THE HOSES.

**4** ROUTE HOSES (A) AND (C) AS SHOWN. MAKE SURE THE HOSE LABELS AND THE DISHWASHER LABELS MATCH BEFORE MAKING THE CONNECTIONS.

**5** CONNECT ONE SET OF VHR "FAN CONNECTION" WIRES TO THE BLACK DISHWASHER "FAN CONNECTION" WIRE. CONNECT THE OTHER SET OF VHR FAN WIRES TO THE WHITE DISHWASHER WIRE. THERE IS NO GROUND WIRE CONNECTION NEEDED FOR THE FANS.

## Check Pressure Gauge Tubing and Thermistor Cable

After the VHR Unit is installed it is important to check the pressure gauge tubing connection and make sure it was not loosened during installation. In addition, inspect the thermistor cable and make sure it is in good condition.

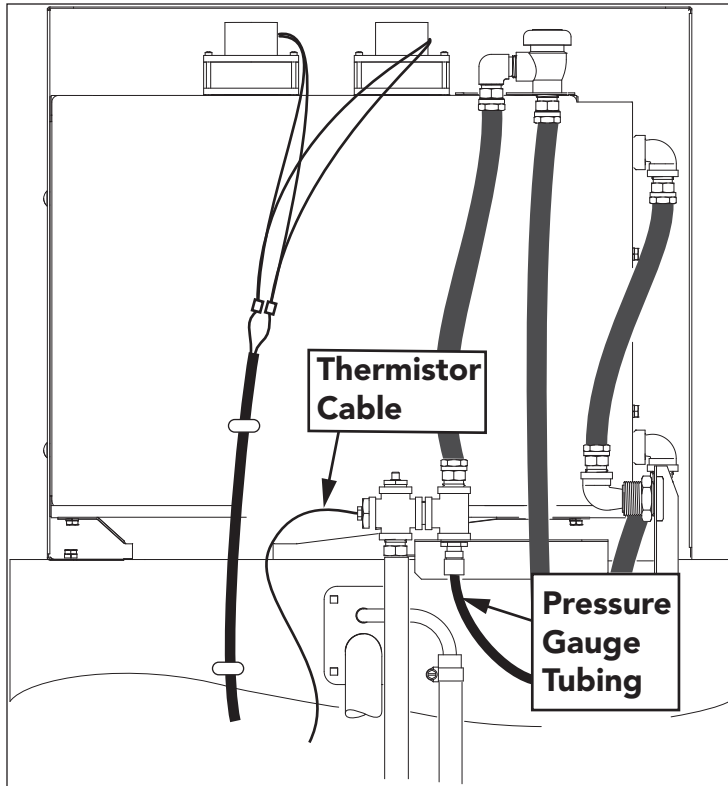


Fig. 6 - Check the tubing and the cable.

**!** CHECK THE PRESSURE GAUGE TUBING.

**!** CHECK THE THERMISTOR CABLE.

**!** THE VHR UNIT INSTALLATION IS COMPLETE.