



10th ANNUAL
FIRST NATIONS
NORTHERN HOUSING
CONFERENCE

A DECADE
OF BUILDING
TOGETHER
2002-2012

2012

FEBRUARY

14-15-16

VALHALLA INN
THUNDER BAY

HRV Troubleshooting		
Symptom	Cause	Solution(s)
Humidity levels too low	Humidistat control set too low	Set humidistat higher
	Lifestyle of Occupants	May have to add humidity artificially
	Continuous ventilation set at "Medium"	Set continuous ventilation at "Low"
Humidity levels too high	Humidistat control set too high	Set humidistat lower
	Lifestyle of Occupants	Avoid hanging clothes to dry, storing wood and venting clothes dryer inside
	HRV undersized initially	Properly size system & components
	HRV undersized to handle hot tub, indoor pool or similar	Cover pools, spas, similar when not in use
	HRV not operating or malfunctioning	Check HRV for proper operation
	Humid summer days	
Remote switch not operating	Improper connection of 24V control board	Check HRV 24V board to ensure unit is able to jump to high speed
	Improper connection to external low voltage wiring between HRV & switch	Check external wiring for short
	External low voltage wire shorted by staple, nail, etc...	
	Malfunction with 24V transformer in HRV	Check 24V transformer
HRV and/or ducts frosting	HRV airflows improperly balanced	Balance HRV
	Malfunction in the HRV's defrost system	Repair or replace defrost system/HRV
	Minimal frost build up is expected on core before defrost cycle function initiates	
Supply air feels cool	HRV airflows improperly balanced	Balance HRV
	Poor location of supply air grilles	Locate grilles high on walls or at ceiling
	Outdoor temperature extremely cold	Install HRV with higher sensible effectiveness Install a larger duct heater
	If supply air is installed into furnace return air the furnace fan is to be interlocked to run continuously with the HRV to distribute ventilation air	
Excess water in bottom of HRV	Drain pans plugged	Check drain nozzle connection
	Improper connection of HRV drain lines	Check water drain connections
	Drain lines obstructed	Look for kinks or clogs in the lines
	HRV isn't level	Adjust & level HRV
	HRV heat exchange core not installed properly	Check heat exchange core installation
Condensation or ice build up in insulated duct outside	Incomplete vapour barrier or insulation around flex insulated duct	Seal all joints and insure insulation is complete & vapour barrier continuous
	HRV airflows improperly balanced	Balance HRV
Poor airflows	Filters and/or core are plugged	Clean filters and core
	Outside hood mesh obstructed	Check and clean outside hoods
	House grilles/dampers closed	Open grilles & dampers as required for balanced delivery of ventilation air
	HRV airflows improperly balanced	Balance HRV
	Poor power supply	Check power supply
	Improperly sized ducting	Install properly sized ducting as per design. Designs to be by qualified person, i.e. HRAI certified or similar
	Undersized HRV	Properly size system & components
	Malfunction with HRV	Check HRV for proper operation



Developed by Shibogama Technical Services