HAI Omni/Lumina CoolMaster Integration

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INTRODUCTION

HAI Omni and Lumina family controllers support two-way integration with CoolMaster RS-232 interface adapters for VRV and VRF air conditioning systems. The HAI controller can change the setpoints, operating modes, and monitor changes in these items and current room temperatures.

Each indoor unit appears as a standard HAI thermostat and may be controlled as though it was a standard HAI thermostat.

INSTALLATION

The HAI controller connects to the CoolMaster adapter using an HAI Model 36A05-4 Serial Connectivity Adapter Kit. Set the Serial Function for the serial port on the HAI controller to "CoolMaster".

Alternately, the HAI 10A17-1 Serial Expander may be used to connect the CoolMaster adapter. In this case, a straight-through DB-9 male-to-female cable must be used between the HAI controller and the CoolMaster adapter. Set the Expander Type for the desired HAI expander address to "CoolMaster".

Each CoolMaster adapter supports multiple indoor units. The HAI controller supports multiple CoolMaster adapters connected through unique serial ports on the HAI controller. Adapter 1 is connected to the lowest numbered serial port set to "CoolMaster"; adapter 2 is connected to the next higher serial port set to "CoolMaster"; and so on.

Each thermostat in the HAI controller can be assigned to an indoor unit on one of the CoolMaster adapters. The specific indoor unit is identified by the adapter number, system number, and indoor unit address. The system number and indoor unit addresses are determined from the CoolMaster adapter and the AC system settings. Associate a thermostat in the HAI controller with a CoolMaster indoor unit through the HAI PC Access software. First, set the thermostat type for the thermostat to "Auto Heat/Cool", "Heat/Cool", "Heat Only", or "Cool Only" as appropriate. Next, click on "Protocol Address" and in the resulting dialog box set the protocol to "CoolMaster" and enter the adapter number, system number, and indoor unit address.

OPERATION

Setting the system mode of the HAI thermostat to “heat”, “cool”, or “auto” will set the operation mode of the indoor unit accordingly and turn the indoor unit on. Setting the system mode of the HAI thermostat to “off” will turn the indoor unit off.

Setting the HAI thermostat fan mode to “auto” will set the indoor unit fan speed to low. Setting the fan mode to “on” will set the indoor unit fan speed to high. If the indoor unit is off, setting the fan mode on the HAI thermostat will set the fan speed and set the indoor unit operation mode to “fan”.

It is not possible to set the indoor unit operation mode to “dry” or to set the fan speed to anything other than “low” or “high”. The HAI thermostat system mode will show “auto” if the indoor unit operation mode is “auto”, “fan”, or “dry”. The HAI thermostat fan mode will show “auto” if the indoor unit fan speed is “low”, and it will show “on” for any other fan speed setting.

The CoolMaster adapter utilizes a single setpoint for heating and cooling. Changing either the heat or cool setpoint of the HAI thermostat will control this single setpoint.

HAI CONTROLLER COMPATABILITY

CoolMaster interface adapters are supported by HAI Omni IIe, OmniPro II, Lumina and Lumina Pro systems. The systems must be utilizing controller firmware 3.8 or later.