

DEC-HH-1

Hand Held Commissioning Tool

The DEC-HH-1 is a device that can be used with the DEC family (UC & VAV) of controllers to adjust and configure certain parameters within the controller that it is attached to. The primary use is to configure network parameters such as Node ID, baud rate, date/ time etc. When attached to DEC-VAV controllers, the DEC-HH-1 becomes a VAV box balancing tool. The air balancer can easily adjust parameters of the DEC-VAV controller to properly commission and balance the VAV box. The tool also has the ability to manually "force" inputs and outputs to any desired value so that diagnosis and system commissioning can be done easily.

- 80 Character (20 x 4), backlit LCD alphanumeric display
- 5-function keys
- 19 Program keys for data entry
- Connects to DEC-UC and DEC-VAV Universal Controllers to program various network parameters
- Reduces labor during air balancing. Sets min-max CFM and K factors



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DEC-RS Settings

The DEC-HH-1 is used to configure and setup the DEC family of controllers and room sensors. Please reference the DEC-RS tech/datasheet for more information.

Forcing Input/Output Values

The DEC-HH-1 has the ability to manually “force” any Input (Average or Instantaneous) or Output (Digital or Analog) to any desired value. When an input or output is put into forced mode, the user can choose any value for that point. This is very useful for testing you control program and also for on site commissioning of control sequences. Forcing a value into an input or output will stay in that position until the force has been removed from the point.

Forcing Input Values

To change an input value to any desired value, you will need to select F1 from the second menu to first view the input you would like to force to a different value. All inputs will be in AUTO mode by default. To change them from AUTO to FORC mode, just select the input you would like to force by using the UP and DOWN arrows, then push the +/- button to toggle the input from AUTO to FORC. After the value has been changed to FORC, then you can push the RIGHT ARROW button, then the OK button. This will bring up a menu for you to select the forced value of the input. After the forced value has been entered, push the OK button to complete the forced value. Keep in mind the

DEC inputs have an average (Avg) and an instantaneous (Ins) value which can be forced individually. To access the instantaneous values, continuing to select the DOWN ARROW button will bring you to the 3rd and 4th inputs page which displays the instantaneous values.

Forcing Output Values

To change an output value to any desired value, you will need to select F2 from the second menu to first view the output you would like to force to a different value. All outputs will be in AUTO mode by default. To change them from AUTO to FORC mode, just select the output and type you would like to force by using the UP/DOWN, LEFT/RIGHT arrows, then push the +/- button to toggle the input from AUTO to FORC. After the value has been changed to FORC, then you can push the RIGHT ARROW button, then the +/- button to change the ON/OFF value of the digital output. When forcing the analog output value, use the +/- button change the analog output to FORC, then push the RIGHT ARROW button, then the OK button. This will bring up a menu for you to select the forced value of the analog output from 0-100%. After the forced value has been entered, push the OK button to complete the forced value.

VAV Box Setup

The DEC-HH-1 is also a VAV box balancing tool which calibrates the on-board flow sensor. This is done through entering the amount of CFM at 1” W.C. for the VAV box you are balancing into the K Factor field on the DEC-HH-1. The VAV box setup page also displays the Main and Aux actuator control points, the actuators position (if actuator has feedback), actual flow sensor DP and the current calculated CFM. There are 3 items that can be changed in this menu. Both the Main and Aux actuators CW and CCW outputs can be toggled by pushing the +/- button. There are 4 override modes for this feature; AUTO, OFF, CW, CCW, which can be toggled through by pushing the +/- button repeatedly. The amount of CFM at 1” W.C. value must be entered into the K Factor field by pushing the OK button.



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