Operation Supplement: Model HST-A-17343 models

Testing Fenwal® Fire/Overheat Detector part number 17343 using the HST Series heat detector tester.
The following HST models are available for testing Fenwal® 17343 detectors:

    Model HST-A-17343-124-1 for 140 degree F detector
    Model HST-A-17343-124-2 for 325 and 425 degree F detectors
    Model HST-A-17343-124-3 for 600 and 725 degree F detectors
    Model HST-A-17343-113-950 for 950 degree F detectors

    There are several sub-models of 17343 detectors contact Skinner Innovations to verify HST tester matches detector.

Operation:

1. Select the desired temperature setting on the HST tester. The HST temperature setting refers to the detectors rated trip point, the actual temperature that the HST produce will be slightly higher to account for the manufacturers +/- specification.
For additional operation instructions see the "Operation" section of the HST Series Operations Manual

2. Turn on power to the HST and place tester over the detector. The indicator light will turn on while temperature is rising. Indicator light will blink slowly when the HST is close to the detector set point. This may take several minutes. As the temperature nears the set point the rate of rise will be slower, if detector has not already tripped, continue to wait until temperature stops climbing.

3. When detector trips, note the temperature readout on the voltmeter
For more information refer to HST Operations Manual section on "Remote Temperature Output"
If temperature has completely stabilized and the detector still has not tripped, turn the HST to the next higher temperature setting until it does trip, then return the HST set point to the correct temperature setting and proceed to step 4.

4. Cycle power to HST off for 5 seconds, then turn power back on.
The HST will begin to cool briefly when power is cycled, during this time the detector should cool enough to reset.
After HST re-boots temperature will start to climb, continue to watch temperature readout and note when detector trips.

5. Repeat step 4, two additional times until you have recorded a total of 4 separate trips

6. Take the average of only the last three trips points only and record this as the actual trip point

7. Three minutes after the HST has reached the maximum temperature, the heating unit will turn off and the indicator light will blink rapidly. Continue to watch the temperature readout and remove tester when the temperature drops to within 100 degrees of the ambient temperature.

8. Repeat steps 1 thru 7 for remaining detectors

Interpretation of test results:

After noting trip points for all the detectors, it is recommended to use manufacturers +/- tolerances and good judgment to determine Pass/Fail criteria for your particular environment. Detectors should be within similar +/- tolerances. A device which falls outside of this parameter may require replacement or further evaluation. *Results will vary somewhat depending on ambient temperature, battery charge, etc.*
Detector calibration requires specialized laboratory-type equipment and is performed on new detectors at the manufacturers factory. The HST will help to detect major shifts in set point but is not intended to be used to calibrate heat detectors. To meet listing requirements, detector manufactures do not usually provide a way to field adjust heat detector set point.
The material presented in this document is for informational purposes only. Follow the manufacturer's specific testing instructions. Detectors may require additional tests, especially if open flame or other uncontrolled source of heat has been used in the past for testing purposes. See Fenwal® Operation, Maintenance and Installation manual for complete testing instructions.

Example test 1	Trip temp	Manufacturer	Detector Set Point	Manufacturers tolerance
		Fenwal®	725	+/-25
Trip 1	724°			
Trip 2	729°			
Trip 3	719°			
Trip 4	718°			
Result	722°			
Example test 2				
Trip 1	755°	No initial trip using the 725 setting, changed temp setting to next higher setting, until trip, then return to 725		
Trip 2	729°			
Trip 3	719°			
Trip 4	718°			
Result	722°	Average of Trip 2, Trip 3, and Trip 4		