

COOL SMART

QIV Quick Reference Guide

For Charge, Air Flow and Paperless Requirements

This guide covers basic QIV passing requirements for the Honeywell Service Assistant.

Excerpts From COOL SMART QIV Requirements Document

COOL SMART will only pay the QIV incentive when:

1. The proper QIV related data is entered in the system as described in the steps below and in training handouts for the HSAT platform.
2. The QIV meets program requirements in one of two ways:
 - a. The data “**passes**” when both charge and airflow are within charge and air flow parameters below.
 - b. The data can also meet requirements when charge is correct but airflow falls outside the range of Program Requirements. This situation is called an “**exception**” which only applies in cases involving existing ductwork.
3. Data is complete according to QIV requirements document guidelines and matches up with the unit serviced.

Passing Parameters

1. Charge

TXV Systems – Subcooling shall be within 3 degrees of target subcooling found on the unit’s service manual or information plate. Fixed Orifice Systems – Superheat shall be within 5 degrees of Target Superheat Table.

2. Air Flow

Each QIV platform verifies air flow differently. A system will “pass” airflow if the calculated flow over the evaporator coil is between 350 and 450 cfm per ton, Contractors will verify the airflow, as required by the Honeywell Service Assistant.

Exception Parameters

Equipment installed which uses **existing ductwork** and fails the air flow tests meets exception condition where at least charge with respect to air flow is within acceptable parameters and air flow improvements have been offered to customers and documented according to program requirements.

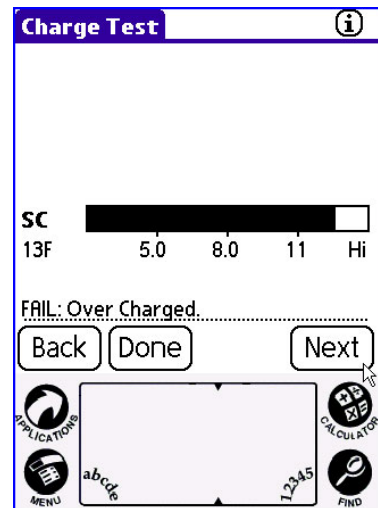
IMPORTANT: Please be sure all data inputs are complete, honest and accurate and that you use the information provided by this guide and HSAT and CheckMe to not only adjust or modify the system to COOL SMART standards but for optimal durability and maintenance of the system.

FOR CONTRACTORS USING HONEYWELL SERVICE ASSISTANT

Charge Testing

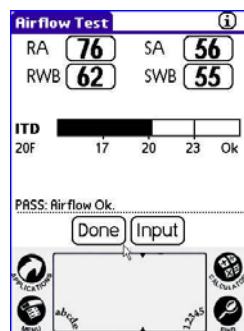
HSAT Charge Test is specific to evaluating charge for program purposes. This screen focuses on either SC = Subcooling for TxV units, or Superheat for fixed orifice systems. In addition to the previous screen Refrigeration Test showing “Safe and Reasonable”, the Charge Test screen must show PASS. If this screen shows “Over Charged” or “Under Charged” you will NOT earn an incentive. If there is NO indication on this screen, it is because there is a fault detected in the system on the Refrigeration Test Screen.

In this example, the Fault Detection screen showed no major faults, however this screen shows the system is not within manufacturers specifications for charge (this unit is specified to operate with 8 degrees of subcooling, but the tool shows the system has 13 degrees, indicating it is overcharged).

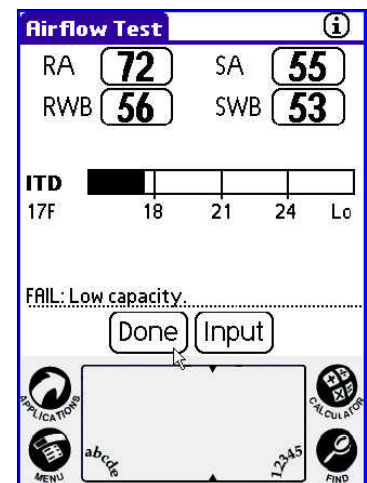


The technician should remove enough charge to return the **SC = subcooling to within 3 degrees +/- of goal**. That is the COOL SMART requirement which is in accordance with manufacturer’s specifications and other industry standards. You also can pick this up on the Refrigeration Test screen since **the target level is shown in the center of each bar** on both screens. Fixed orifice systems must be within 5 degrees +/- of SH = Superheat goal.

Air Flow Testing



After all data is input into proper fields, it is important that the outcome is **within at most 3 degrees of the airflow goal which is indicated at the middle of the ITD bar**. If outcome is more than 3 degrees off the air flow test fails. In the example at right ITD (or Internal Temperature Difference) was 17F and target was 21F so the unit failed and HSAT indicates low capacity. This area must say “pass” like the example at the LEFT for systems involving new ductwork to pass QIV and get an incentive.



If the airflow test fails, the technician should try to perform additional testing to determine why the airflow is problematic and explain the benefits of air flow improvements to the customer. **Make sure you save data before you exit “Airflow Test” or you will not be able to recall any of that data later.**

[This page is derived from Buck Taylor’s HSAT guide which provides complete training info on the screens at...http://www.get-cool.info/html/acrx_support.html... or call Buck at (203) 672-1330]

If air flow fails, complete the appropriate series of questions about offering and installing air flow improvements described in the next section.

Paperless QIV Requirements for Digital Check-Ups and Air Flow for New or Existing Systems

The matrix below is a guideline as of April 2007 for creation of screens. Screen functionality for these questions for MA and RI should be complete in the HSAT by June 1, 2007. An updated quick reference guide will be sent when those screens become available.

Digital Checkup: For Existing Equipment Only No New Equipment			
For payment of incentive, responses to Questions 1 and 3 must always be YES			
<u>Question</u>	<u>Response</u>	<u>Rule</u>	<u>Rule</u>
1- Was the customer issued a \$100 instant credit on their invoice?	Yes/ No	Where Airflow = PASS Required Response: Must be YES	Where Airflow = FAIL Required Response: Must be YES
2- Was outside coil cleaned?	yes/no	No Response Needed	Required Response
3- If the system failed airflow, was the customer advised about why and how to repair system?	Yes/No/NA	No Response Needed	Required Response: Must be YES
4- Status of customer communications about air flow repair.	1) customer refused repair 2) technician will refer to sales dept 3) customer considering AF improvements 4) Customer Accepted Air Flow Improvement Offer	No Response Needed	Required Response
5- What was done to repair airflow problems?	1) added return or supply ducts 2) repaired or adjusted blower 3) increased register size 4) other	No Response Needed	If response to #4 = 4 Required Response
6 -Describe what other actions were taken to correct air flow	<i>Space for text</i>	No Response Needed	5 - If response to #5 = 4 "Other", Desired response, screen comes up
QIV: For New Equipment Only			
For incentive if Question 1 below = NO, Q. # 3 (above) must always be YES			
For payment of incentive if Question 1 = YES AIR FLOW Must Pass			
<u>Question</u>	<u>Response</u>	<u>Rule</u>	<u>Rule</u>
1- Was new duct work installed?	yes/no	All Cases Response Needed if "New" to Q #1 Where New Ductwork = NO and Where Airflow = PASS No Response Needed	Where Airflow = FAIL Where New Ductwork = Yes NO Incentive Where New Ductwork = NO and Where Airflow = FAIL Questions #3 through 6 above apply