

# Part No. 6760HT Air Quality Test Kit

313128C  
EN

**Tests compressed air supply to identify causes of refinishing problems.  
Not for use in hazardous locations.**

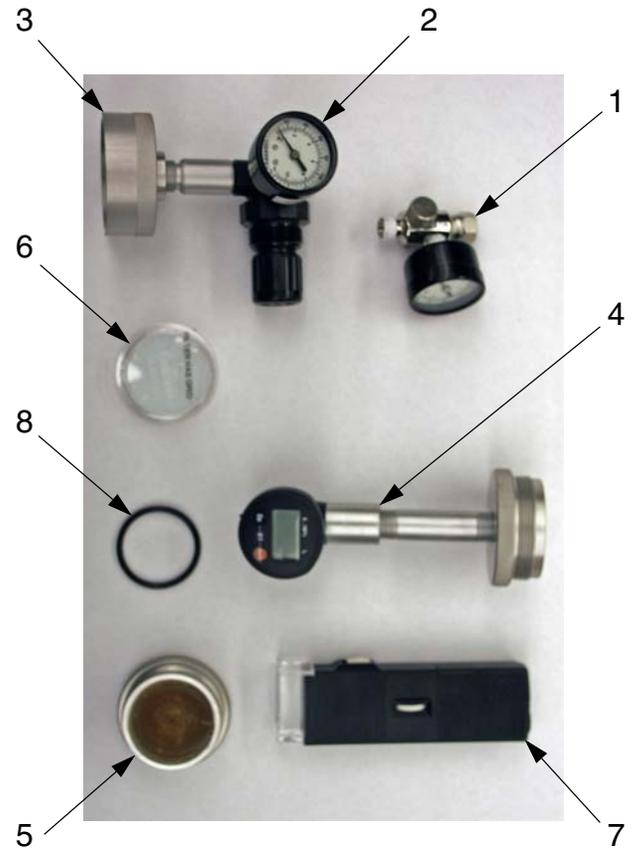


**Important Safety Instructions**  
Read all warnings and instructions in this manual.  
Save these instructions.

## Kit Parts

Ref. No.	Part No.	Description
1	U03310	High Volume Air Adjusting Valve
2	1410	Air Regulator with Gauge and Swivel Fitting
3	n/a	Air Regulator Housing
4	n/a	Hygrometer Assembly
5	n/a	Bronze Filter Support
6	22690	Filters (package of 20)
7	n/a	30x Microscope
8	n/a	O-ring

*Parts labeled n/a are not available separately.*



**FIG. 1. Air Quality Test Kit Parts**

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

 <b>WARNING</b>	
  	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>

## Overview

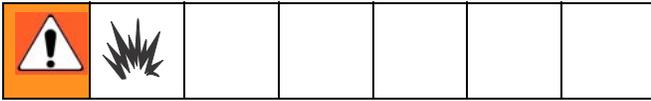


The Air Quality Test Kit (AQTK) identifies three major causes of refinishing problems:

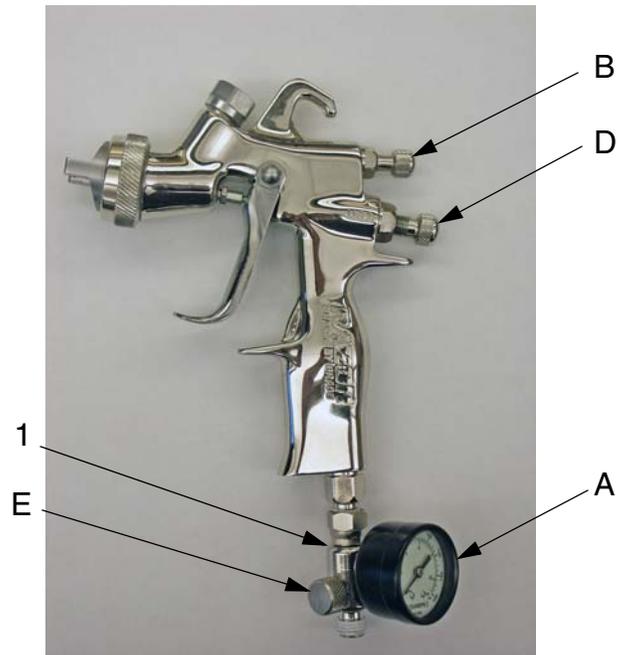
- Inadequate compressed air supply
- Compressed air humidity
- Particulate contamination

An adequate supply of clean dry air, free from humidity, oil, and particulate contamination, is essential in professional painting applications.

## Test for Inadequate Compressed Air Supply

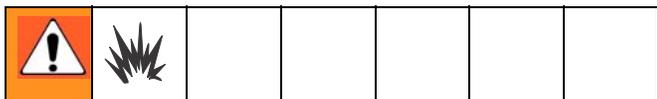


1. Relieve air and fluid pressure to the gun. Disconnect the gun air hose and fluid supply.
2. Attach the high volume air adjusting valve (1) to the gun air inlet. See FIG. 2.
3. Connect the gun air hose to the air adjusting valve.
4. Set the gun fan (B) and material control (D) knobs to the wide-open position.
5. Turn on the gun air. With the trigger held fully back, turn the knob (E) to set the desired air pressure on the gauge (A). Hold this for 2 minutes.
6. If the gun cannot maintain the necessary air pressure, do not attempt to spray. Spraying with inadequate air can cause unsatisfactory refinishing work.



**FIG. 2. High Volume Air Adjusting Valve, Shown Installed on Razor® Air Spray Gun**

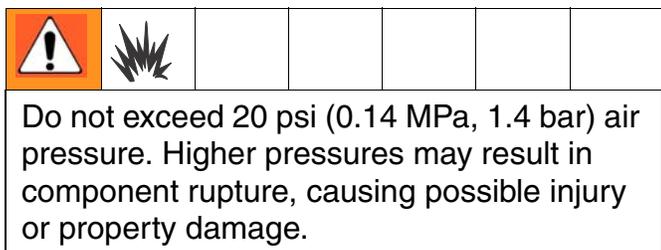
## Test Compressed Air Humidity (CAH) Level



### Test Procedure

**NOTE:** See page 5 for directions on changing the display readout, changing the temperature scale, and changing the battery.

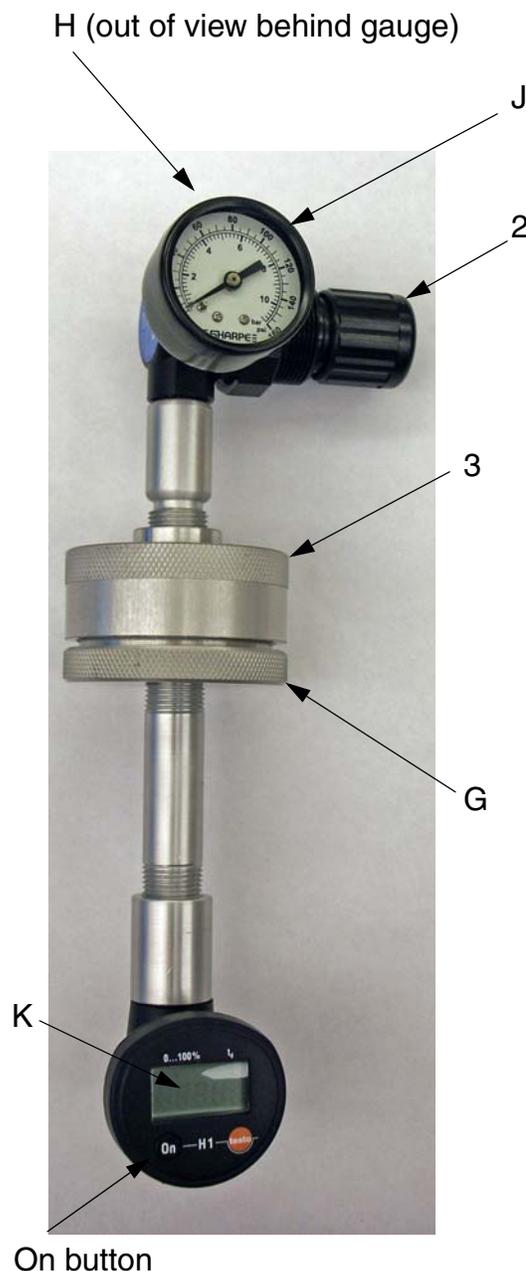
1. Ensure that the o-ring (8, FIG. 1) is in place in the hygrometer housing (G). Screw the hygrometer housing into the air regulator housing (3) only until you feel the o-ring being compressed. See FIG. 3.
2. Turn the air regulator closed, all the way counterclockwise.
3. Connect the air supply to the AQTK air inlet (H) at the location you want to test.
4. Adjust the regulator (2) to 20 psi (0.14 MPa, 1.4 bar).



5. After 1 minute, press the On button. The display (K) will show the compressed air humidity (CAH). CAH less than 10% is desirable for most paint refinish applications. See FIG. 4.
6. Press and hold the On button until it shuts off.

**NOTE:** Display turns off after 5 minutes of inactivity.

7. Shut off the air before disconnecting the test kit from the air supply.



**FIG. 3. Hygrometer Assembly**

## Change the Display Readout

1. Press and release the On button to change the display from humidity (FIG. 4) to temperature (FIG. 5).



**FIG. 4. Humidity Display**



**FIG. 5. Temperature Display**

2. Press and release the On button again to change the display from temperature to dew point temperature. A triangle is displayed with the dew point. See FIG. 6.



**FIG. 6. Dew Point Display**

3. Press and release the On button again to change the display from dew point temperature back to humidity. See FIG. 4.

## Change the Temperature Scale

The temperature scale is selectable between Fahrenheit (F) and Celsius (C).

With the display off, press and hold the On button. As soon as the temperature scale (F or C) appears, release the button, then quickly press and release once to change the scale (C or F).

## Change the Battery

A battery icon is displayed continuously when the battery power is getting low.

1. Insert a coin into either slot (L) and turn the coin to lift the display assembly from the housing.
2. Slide out the old battery.
3. Replace with a commercially available CR2032 button-type 3 volt battery (M). Insert the new battery with the + side showing. See FIG. 7.



**FIG. 7. Change Battery**

# Test Compressed Air for Contaminants



## Clean Air Requirements

The AQTK enables you to easily test for contaminants in compressed air lines, filters, hoses, and related equipment.

The filter collects contaminants as small as 0.45 micron (less than 20 millionths of an inch). Use the microscope to inspect the contaminants and determine their source.

## Test Procedure

1. Inspect the air regulator housing (3) and air passage. Use a cotton swab or clean cloth and solvent to remove any contamination.

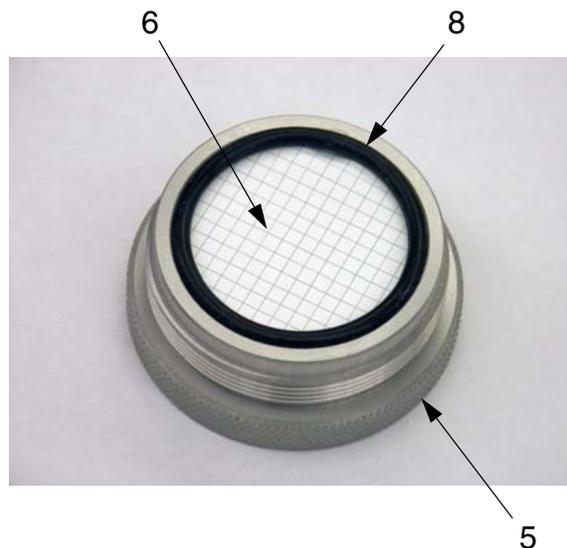
**NOTE:** Filters can only be used once. Replacements are available in packages of 20 (order Part No. 22690).

2. See FIG. 8. Place a new filter (6, white with a grid) onto the filter support (5). Do not use the divider paper as a filter. Install the o-ring (8) to hold the filter in place. Screw the filter support into the air regulator housing (3) until you just feel the o-ring being compressed.
3. Turn the air regulator knob (2) all the way counterclockwise.
4. Connect the air supply to the AQTK air inlet at the location you want to test.
5. Set the air regulator to 20 psi (0.14 MPa, 1.4 bar).
6. Test for 10 minutes.

7. Turn the air regulator knob all the way counterclockwise so the gauge reads 0.
8. Shut off the air before disconnecting the test kit from the air supply.
9. Unscrew the filter support (5) and remove the filter (6).
10. Place the filter on a flat surface. Set the microscope (7, FIG. 1) on top of the filter. Turn on the light and adjust the focus to identify particulates. See **Troubleshooting**, page 7.

**NOTE:** If the microscope light does not work, replace the size AA battery.

11. After testing, place the filter in a clean storage bag and record the test conditions for future comparisons.
12. Clean the housing before storing (step 1).



**FIG. 8. Filter and Filter Support**

# Troubleshooting

Problem	Cause	Solutions
Yellow or brown spots.	If spots do not dry, they are oil contamination.	<ul style="list-style-type: none"> <li>• Replace rings in compressor.</li> <li>• Replace compressor.</li> <li>• Clean air lines.</li> </ul>
Wet staining.	Place filter under lamp. If wetness dissipates, it is water.	<ul style="list-style-type: none"> <li>• Drain supply lines more often.</li> <li>• Reroute supply lines.</li> <li>• Install water traps in air lines.</li> <li>• Install water separators and filters.</li> </ul>
Soft black particles.	Rubber hose deterioration.	Replace with new hoses and retest.
Red or brown particles, fine or crusty.	If particles cling to a magnet, it shows rust formation in iron pipes.	Replace with galvanized or copper pipe. Add filters.

# 1 Year Limited Warranty

Sharpe warrants this product to the original user against defective material or workmanship for a period of 1 year from the date of purchase.

Sharpe reserves the right to determine whether the part or parts failed because of defective material, workmanship, or other causes. Failures caused by accident, alteration, or misuse are not covered by this warranty.

Sharpe, at its discretion, will repair or replace products covered under this warranty free of charge. Repairs or replacements of products covered under this warranty are warranted for the remainder of the original warranty period.

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- Improved Product Development - Your input helps us continue to design products that meet your needs.

For the most up-to-date information and to register your product, please go to [www.sharpe1.com](http://www.sharpe1.com) and click on "Register Product."

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*Original instructions. This manual contains English. MM 313128*

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