Q-TRAK™
INDOOR AIR QUALITY MONITOR
MODEL 7575

OPERATION AND SERVICE MANUAL

START SEEING THE BENEFITS OF REGISTERING TODAY!

Thank you for your TSI instrument purchase. Occasionally, TSI releases information on software updates, product enhancements and new products. By registering your instrument, TSI will be able to send this important information to you.

http://register.tsi.com

As part of the registration process, you will be asked for your comments on TSI products and services. TSI's customer feedback program gives customers like you a way to tell us how we are doing.

TSI UNDERSTANDING, ACCELERATED

TSI Incorporated - Visit our website **www.tsi.com** for more information.

USA	**Tel:** +1 800 874 2811
UK	**Tel:** +44 149 4 459200
France	**Tel:** +33 1 41 19 21 99
Germany	**Tel:** +49 241 523030
India	**Tel:** +91 80 67877200
China	**Tel:** +86 10 8219 7688
Singapore	**Tel:** +65 6595 6388

INJURIES, OR DAMAGES CONCERNING THE GOODS (INCLUDING CLAIMS BASED ON CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) SHALL BE THE RETURN OF GOODS TO SELLER AND THE REFUND OF THE PURCHASE PRICE, OR, AT THE OPTION OF SELLER, THE REPAIR OR REPLACEMENT OF THE GOODS. IN THE CASE OF SOFTWARE, SELLER WILL REPAIR OR REPLACE DEFECTIVE SOFTWARE OR IF UNABLE TO DO SO, WILL REFUND THE PURCHASE PRICE OF THE SOFTWARE. IN NO EVENT SHALL SELLER BE LIABLE FOR LOST PROFITS, BUSINESS INTERRUPTION, OR ANY SPECIAL, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES. SELLER SHALL NOT BE RESPONSIBLE FOR INSTALLATION, DISMANTLING OR REINSTALLATION COSTS OR CHARGES. No Action, regardless of form, may be brought against Seller more than 12 months after a cause of action has accrued. The goods returned under warranty to Seller's factory shall be at Buyer's risk of loss, and will be returned, if at all, at Seller's risk of loss.

Buyer and all users are deemed to have accepted this LIMITATION OF WARRANTY AND LIABILITY, which contains the complete and exclusive limited warranty of Seller. This LIMITATION OF WARRANTY AND LIABILITY may not be amended, modified or its terms waived, except by writing signed by an Officer of Seller.

Service Policy
Knowing that inoperative or defective instruments are as detrimental to TSI as they are to our customers, our service policy is designed to give prompt attention to any problems. If any malfunction is discovered, please contact your nearest sales office or representative, or call Customer Service department at (800) 874-2811 (USA) or (1) 651-490-2811 (International).

CONTENTS

Chapter 1

Unpacking and Parts Identification

Carefully unpack the instrument and accessories from the shipping container. Check the individual parts against the list of components below. If anything is missing or damaged, notify TSI immediately.

1. Carrying case
2. Instrument (7575-X or 7575-X-NB)
3. USB cable
4. TrakPro™ CD-ROM with data analysis software
5. AC adapter

This manual supports the following models:

Model	Description
7575-X	Multi-Function Ventilation Meter, No Differential Pressure Sensor
7575-X-NB	Multi-Function Ventilation Meter, No Differential Pressure Sensor, No Bluetooth®

Bluetooth® Safety and Compliance

This product uses Classic Bluetooth® v2.0 to communicate with software applications.

Hereby, TSI® Incorporated declares that this Classic Bluetooth® test and measurement instrument is in compliance with Directive 2014/53/EC.

Transmit Power Rating is +4 dBm, MAX @ 2.4 – 2.5 GHz.

NOTICE

This device may not cause interference; this device must accept any interference, including interference that may cause undesired operation of the device.

l'appareil ne doit pas produire de brouillage; l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules (FCC ID: PI4411B). These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTICE

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Chapter 2

Setting-up

Supplying Power to the Model 7575 Q-Trak™ IAQ Monitor

The Model 7575 Q-Trak Indoor Air Quality (IAQ) Monitor can be powered in one of two ways: four size AA batteries or the AC adapter.

Installing the Batteries

Insert four AA batteries as indicated by the diagram located on the inside of the battery compartment. The Model 7575 is designed to operate with either alkaline or NiMH rechargeable batteries. Battery life will be shorter if NiMH batteries are used. If NiMH batteries are used the DIP switch will need to be changed. Refer to the next section, DIP Switch Settings. Carbon-zinc batteries are not recommended because of the danger of battery acid leakage.

DIP Switch Settings

To access the DIP switch, remove the batteries from the battery compartment. On the inside of the battery compartment, there is a window with a single DIP switch (see figure below). The table below shows the functions for the switch.

	C A U T I O N
	Make certain that power is turned off before changing the DIP switch settings.

Switch	Function	Settings
1	NiMH	OFF: Alkaline Batteries
		ON: NiMH Rechargeable Batteries

Q-TRAK is a trademark of TSI Incorporated.

⚠	**C A U T I O N**
	DO NOT attempt to charge alkaline batteries.

Using the AC Adapter

The AC adapter can be used to power the instrument or to charge the NiMH batteries when the DIP switch in the battery compartment is set to NiMH. If the DIP switch is set to Alkaline, and the AC power adapter is connected, then the batteries will be bypassed and the monitor will be powered by the AC adapter. Be sure to provide the correct voltage and frequency, which is marked on the back of the AC adapter.

AC Adapter input
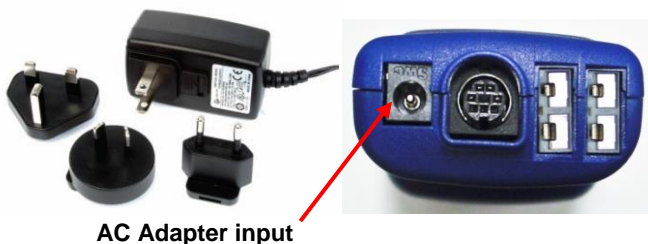
Connecting IAQ or Ventilation Probes

The ventilation and IAQ probes have a "D" shape overmolding on the mini-DIN connector which must align with the connector at the base of the 7575 monitor. This will ensure the probe is properly connected and remains so during use. Once connected and turned on, refer to the **DISPLAY SETUP** for displaying the desired measurements.

**"D" Shaped
mini-DIN connector**

Using Optional Telescoping Thermoanemometer Probes

The telescoping probe contains the velocity, temperature, and humidity sensors. When using the probe, make sure the sensor window is fully exposed and the orientation dimple is facing upstream.

N O T I C E
For temperature and humidity measurements, make sure that at least 3 inches (7.5 cm) of the probe is in the flow to allow the temperature and humidity sensors to be in the air stream.

Extending the Probe

To extend the probe, hold the handle in one hand while pulling on the probe tip with the other hand. **DO NOT** hold the cable while extending the probe as this prevents the probe from extending.

Retracting the Probe

To retract the probe, hold the handle in one hand while gently pulling the probe cable until the smallest antenna section is retracted.

	W A R N I N G
⚠	**DO NOT** use the instrument or probes near hazardous voltage sources since serious injury could result.

Thermocouple Ports

The 7575 series includes two thermocouple ports at the base of the monitor. Any K-Alloy thermocouple with mini-connector can be attached. See Display Setup for setting the thermocouple temperature readings to be displayed as TC1, TC2, or TC1-TC2.

Connecting the Thermocouples

The K-Alloy thermocouple with mini-connector has one terminal wider than the other. The wider terminal will be inserted into the bottom of the TC1 or TC2 connector port.

K-alloy Thermocouple

TC1   **TC2**
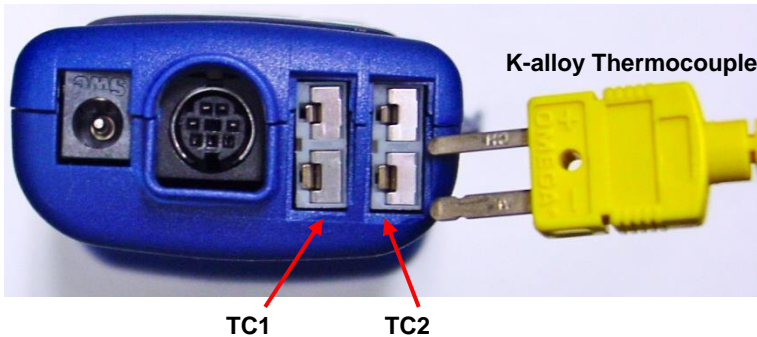
	W A R N I N G
	Thermocouples from an alternate TSI® supplier must have the metal sheath electrically isolated from the wires inside. Failure to meet this requirement may result in false readings, electrical shock, or fire hazard.

	W A R N I N G
	DO NOT use the instrument or probes near hazardous voltage sources since serious injury could result.

Connecting the Optional Bluetooth® Portable Printer Device (Model 7575-X only)

To connect the Bluetooth® printer to the Model 7575, power on the unit and the printer. Then press the **MENU** soft key. From the Menu use the ▲ and ▼ keys to highlight **Bluetooth Functions** and press the ↵ key. Highlight **Discover Devices** and press the ↵ key. If other TSI® Bluetooth®-printers are in the area, turn them off before searching. The Model 7575 will then search for and list all available Bluetooth devices.

For more information on establishing Bluetooth connections, refer to TSI® Applications Note TSI-150.

Connecting to a Computer

Use the Computer Interface USB Cable provided with the Model 7575 to connect the instrument to a computer for downloading stored data.

USB Communications Port

⊠	**C A U T I O N**
	This symbol is used to indicate that the data port of the Model 9565 **IS NOT** intended for connection to a public telecommunications network. Connect the USB data port only to another USB port on a safety certified computing device.

⚠	**C A U T I O N**
	Protection provided by the instrument could be impaired if used in a manner other than specified in this user manual.

Bluetooth is a registered trademark of Bluetooth SIG.

(This page intentionally left blank)

Chapter 3

Operation

Keypad Functions

ON/OFF (⏻) Key	Press the **ON/OFF** key to turn the Model 7575 on and off. During the power up sequence the display will show the following: Model Number, Serial Number, and Software Revision. To turn the instrument off, press and *hold* the **ON/OFF** Key for 3 seconds. The instrument will count down (OFF2, OFF1, OFF). If AC Adapter is attached, the Battery and **ON/OFF** Key is bypassed. If the **ON/OFF** Key is pressed while the AC adapter is attached, the instrument instructs you to "Unplug the instrument to turn off unit". To turn the instrument on again, attach the AC adapter or press the **ON/OFF** Key.
Arrow (▲▼) Keys	Press to scroll through choices while setting a parameter. Pressing the ▲▼ keys simultaneously will lock the keypad to prevent unauthorized adjustments to the instruments. To unlock the keypad, press the ▲▼ keys simultaneously.
Enter (↵) Key	Press to accept a menu selection, value or condition. Press to Start or Stop datalogging when in Continuous Key mode.

Arrow (◄or ►) and Menu Soft Keys	Press arrow keys to change choices while setting a parameter. Press the Menu soft key to select the Menu selections, which are Display Setup, Settings, Flow Setup, VOC Setup, Actual/Std Setup, Data Logging, Zero CO, Applications, Calibration, and Bluetooth Functions.

Common Terms

This manual has several terms used in various places. The following is a brief explanation of the meanings of those terms.

Sample	Consists of all of the measurement parameters stored at the same time.
Test ID	A group of samples. The statistics (average, minimum, maximum, and count) are calculated for each test ID. The maximum number of test IDs is 100.
Time Constant	The time constant is an averaging period. It is used to dampen the display. If you are experiencing fluctuating flows, a longer time constant will slow down those fluctuations. The display will update every second, but the displayed reading will be the average over the last time constant period. For example, if the time constant is 10 seconds, the display will update every second, but the displayed reading will be the average from the last 10 seconds. This is also referred to as a "moving average".
Log Interval	The logging interval is the period over which the instrument will average the logged sample. For example, if the logging interval is set to 30 minutes, each sample will be the average over the previous 30 minutes.
Test Length	This is the time over which the data will be logged in the "Continuous-Time" mode of data logging.

Menus

The menu structure is organized to allow easy navigation and instrument setup utilizing the arrow keys and ← button. To exit a menu or menu item, press the **ESC** key.

- To access the Menu items, press the **Menu** soft key.
- To select a parameter, use the Arrow keys to highlight the selection and press the ← button.

```
  MENU          [IIII]
Display Setup
Settings
Flow Setup
VOC Setup
Actual/Std Setup
Data Logging
Zero CO
Applications
Calibration
Bluetooth Functions
```
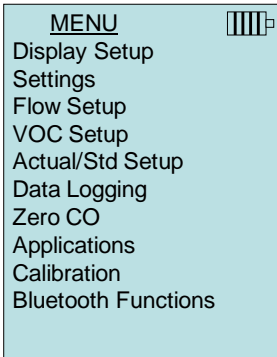
DISPLAY SETUP

Display Setup menu is where you will setup the desired parameters to be displayed on the instrument screen. With a parameter highlighted you can then use the **ON** soft key to have it show up on the instrument screen or select the **OFF** soft key to turn off the parameter. Use **PRIMARY** soft key to have a parameter show up on the instrument screen in a larger display. A total of five parameters can be shown on the display, 1 primary (large font) and 4 secondary. Parameters shown in the Display Setup screen are dependent on the type of probe currently connected.

- When set to **PRIMARY**, measurement will be the large font on the display.
- When set to **ON**, measurement will be displayed as a secondary parameter (up to 4 can be displayed).
- When set to **OFF**, measurement will not be displayed.

```
   MENU          ▯▯▯▯▭
 Display Setup ──→ DISPLAY SETUP  ▯▯▯▯▭
 Settings       CO2          *ON
 Flow Setup     Temperature   OFF
 VOC Setup      %RH           OFF
 Actual/Std Setup  Dewpoint   ON
 Data Logging   Wetbulb       ON
 Zero CO        CO            ON
 Applications   Baro Press    OFF
 Calibration
 Bluetooth Functions
                  ON   PRIMARY   OFF
```
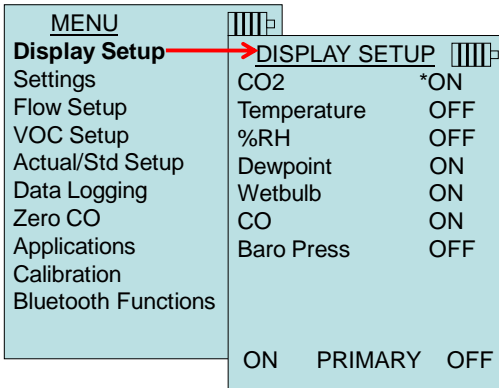
SETTINGS

Settings menu is where you can set the general settings. These include Language, Beeper, Select Units, Time Constant, Contrast, Set Time, Set Date, Time Format, Date Format, Number Format, Backlight, and Auto Off. Use the ▲or ▼ keys to select an option, and the ◄ or ► soft keys to change the settings for each option. Press the ↵ key to accept settings.

```
MENU            ▐▐▐▐▐▌
Display Setup
Settings             SETTINGS         ▐▐▐▌
Flow Setup           Language      English
VOC Setup            Beeper        Disable
Actual/Std Setup     Select Units
Data Logging         Time Constant  1 Second
Zero CO              Contrast       5
Applications         Set Time       09:14 AM
Calibration          Set Date       10/31/08
Bluetooth Functions  Time Format    12 hr
                     Date Format    MM/DD/YY
                     Number Format  XX,XXX.YY
                     Backlight      Auto
                     Auto Off       Enable
                     ---- ∨  ----
```
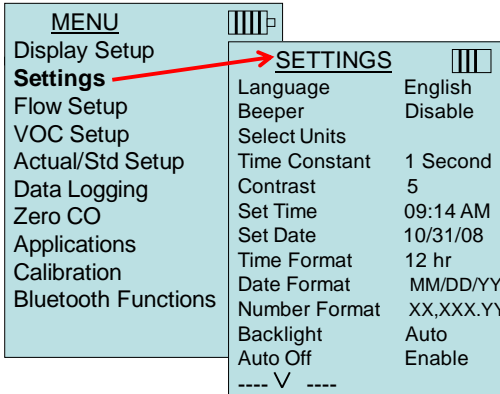
FLOW SET UP

In **Flow Setup** mode, there are five types: Round Duct, Rectangle Duct, Duct Area, Horn, and Air Cone. Use the ◄ or ► soft keys to scroll through the types and then press the ↵ key to accept the desired type. To change the value, highlight the **Enter Settings** option and press the ↵ key.

```
MENU            ▐▐▐▐▐▌
Display Setup                              FLOW TYPE      ▐▐▐▐▐▌
Settings          FLOW SETUP   ▐▐▐▐▐▌
Flow Setup        Flow Type   Round Duct    Round duct
VOC Setup         Enter Settings            Rect duct
Actual/Std Setup                            Duct area
Data Logging                                Horn
Zero CO                                     Air cone
Applications
Calibration
Bluetooth Functions                       ENTER SETTINGS  ▐▐▐▐▐▌


                                            12.0 in dia
                    <        >
```
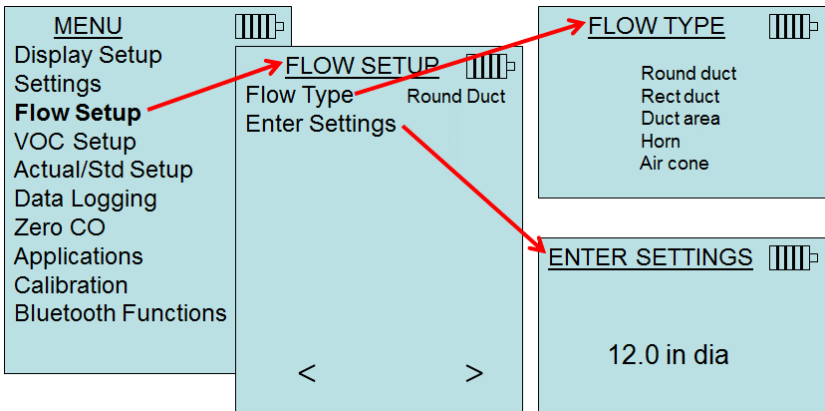
Round duct, **Rect duct** and **Duct area** are used to perform a duct traverse using a thermoanemometer probe. For more information on how to perform a duct traverse, refer to Application Note TSI-106.

Up to 5 rectangular ducts, 5 round ducts, and 5 duct areas can be pre-programed for quick use on a jobsite:
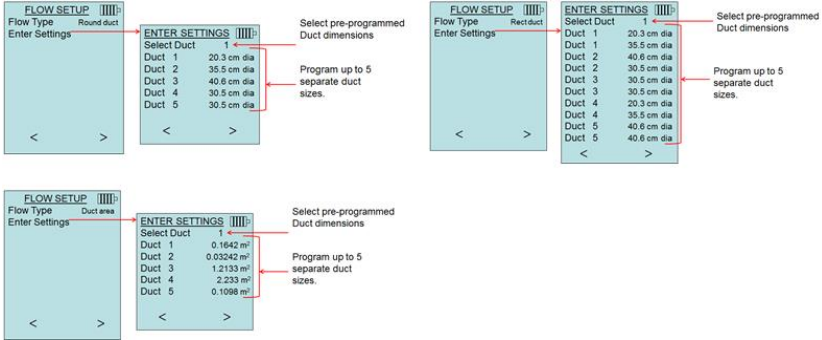
When **Flow** is set as the **Primary** measurement in the **Display Setup** menu, the duct dimensions will also be displayed:
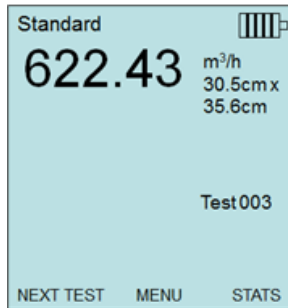
When measuring **Flow** as the **Primary** measurement, the parameters can be quickly changed by pressing the ▲ or ▼ key while on the main measurement screen:

Make adjustments with the ▲ or ▼ arrow keys and press ↵ to accept, or enter the **Select Duct** menu to choose a different pre-programmed dimension.

N O T E S

The horn numbers are the models of the horns. For example, 100 refers to a horn model number AM 100. Only horns with Model numbers as follows can be used with this function: AM 100, AM 300, AM 600 and AM 1200. If a horn model number is chosen, the instrument will return to measuring mode and use a preprogrammed curve to calculate flow rate from velocity when using a thermoanemometer probe.

The air cone selection applies to the Model 995 Rotating Vane Anemometer and the Air Cone kit p/n 801749.

VOC SETUP

This menu item applies to TSI® probes that measure Volatile Organic Compounds (VOC). Refer to the manual included with VOC probe Models 984, 985, 986 and 987 for information on usage and setup.

ACTUAL/STANDARD SETUP

Choose **Actual/Standard** measurements and parameters in the Act/Std Setup menu. The Model 7575 measures the actual barometric pressure using an internal sensor. The temperature source can be entered manually or taken from a probe that measures temperature (plug in probe or thermocouple).

For more information on Actual and Standard conditions, refer to Application Note TSI-109.
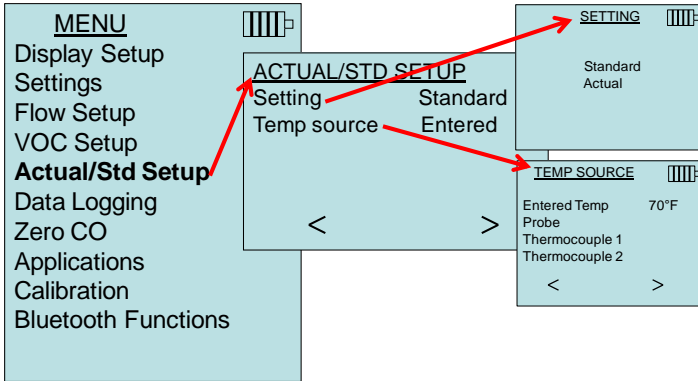
DATA LOGGING

Measurements

Measurements to be logged to memory are independent of measurements on the display, and must therefore be selected under **DATA LOGGING → Measurements**.

- When set to **ON**, measurement will be logged to memory.

- When set to **DISPLAY**, measurement will be logged to memory if it is visible on the main running screen.

- When set to **OFF**, measurement will not be logged to memory.

```
MENU                ▐▐▐▐▐▌
Display Setup    DATA LOGGING    ▐▐▐▐▐▌
Settings         Measurements       MEASUREMENTS▐▐▐▐▌
Flow Setup       Log Mode      Cont.-t  CO2          DISPLAY
VOC Setup        Log Settings            Temperature  DISPLAY
Actual/Std Setup Choose Test     Test   %RH          DISPLAY
Data Logging     Name Test              Dewpoint     OFF
Zero CO          View Data              Wetbulb      DISPLAY
Applications     Delete Data            CO           OFF
Calibration      % Memory               Baro Press   ON
Bluetooth Functions
                     <         >
                                        ON   DISPLAY   OFF
```

Log Mode/Log Settings

The 7575 can be programmed to store measurements to memory in several different logging formats:

- Manual
- Auto-save
- Cont-key
- Cont-time
- Program 1
- Program 2

Manual Logging

Manual mode does not automatically save data, but instead prompts the user to **SAVE** a sample or **ESC** to not save. To start logging, press the ↵ key.

N O T E
To adjust the averaging period for a sample when using Manual logging, change the Time Constant (increase or decrease in seconds) which is located in the Settings Menu.

DATA LOGGING
Measurements
Log Mode   Manual
Log Settings
Choose Test   Test 001
Name Test
View Data
Delete Data
% Memory

LOG MODE
Manual
Auto-save
Cont.-key
Cont.-time
Program 1
Program 2
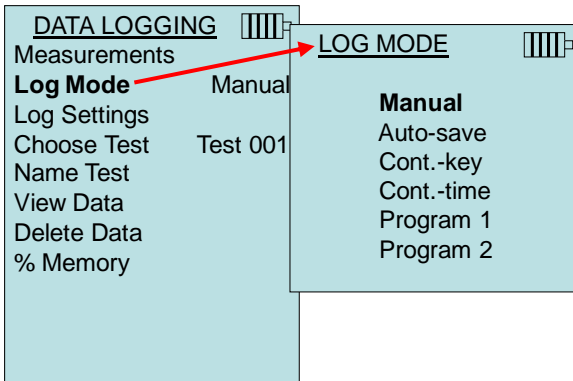
Auto Save Logging

In **Auto-save** mode, the user samples are automatically logged to memory at the end of the sampling period. To start logging, press the ↵ key.

DATA LOGGING
Measurements
Log Mode   Auto-sav
Log Settings
Choose Test   Test 001
Name Test
View Data
Delete Data
% Memory

LOG MODE
Manual
Auto-save
Cont.-key
Cont.-time
Program 1
Program 2
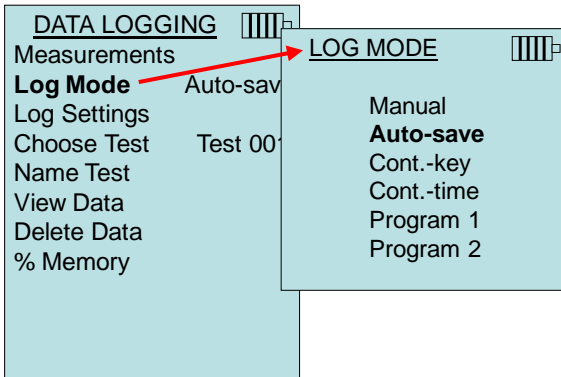
When set to **Auto-save**, the Sample Time can be adjusted. Sample Time is the time period over which the Sample will be averaged.

```
 DATA LOGGING   [[[
Measurements                SAMPLE TIME   [[[[
Log Mode      Auto-sa
Log Settings                     00:05
Choose Test    Test 0           Min:Sec
Name Test
View Data                    <           >
Delete Data
% Memory
```
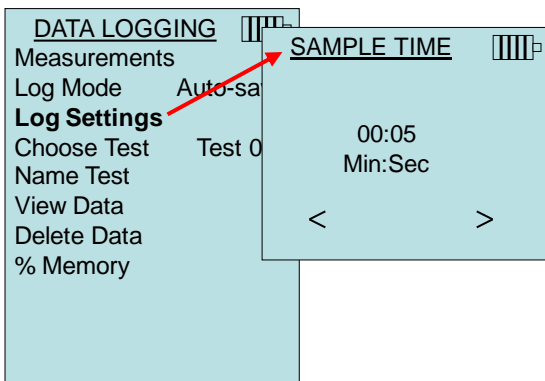
Cont-key Logging

In **Cont-key** mode, the user starts logging by pressing the
↵ key. The instrument will continue logging until the ↵ key
is pressed again.

```
 DATA LOGGING   [[[
Measurements                LOG MODE     [[[[
Log Mode      Cont.-k
Log Settings                  Manual
Choose Test    Test 00        Auto-save
Name Test                     Cont.-key
View Data                     Cont.-time
Delete Data                   Program 1
% Memory                      Program 2
```
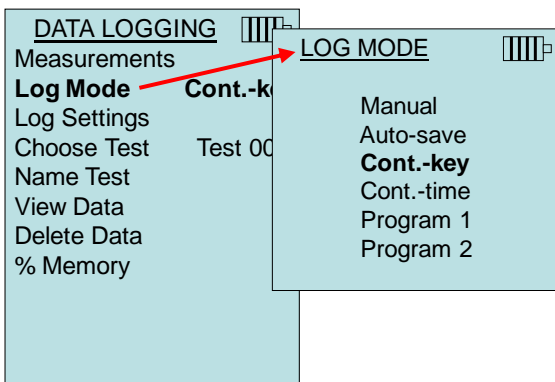
When set to **Cont. key**, the log interval can be adjusted.
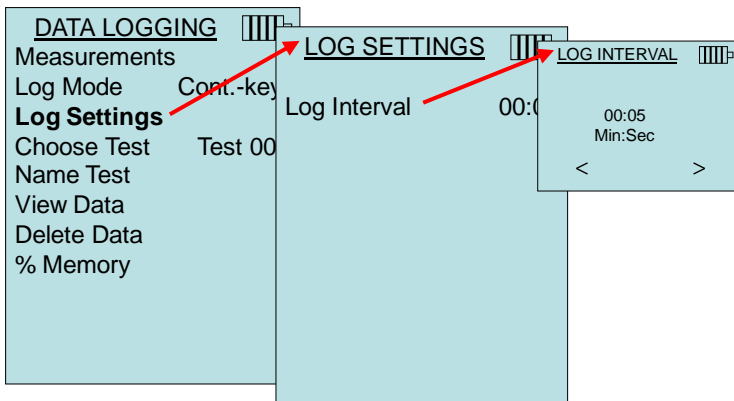
```
 DATA LOGGING    ⅢⅢ⊦
Measurements
Log Mode      Cont.-key
Log Settings
Choose Test    Test 00
Name Test
View Data
Delete Data
% Memory
```

```
LOG SETTINGS    ⅢⅢ⊦
Log Interval        00:0
```

```
LOG INTERVAL    ⅢⅢ⊦

      00:05
      Min:Sec
  <            >
```

N O T E
Pressing the ▲▼ keys simultaneously will lock the keypad to prevent unauthorized adjustments to the instruments during unattended logging. A "Lock" symbol will appear on the display. To unlock the keypad, press the ▲▼ keys simultaneously. The "Lock" symbol will disappear.

Cont-time Logging

In **Cont-time** mode, the user starts taking readings by pressing the ↵ key. The instrument will continue taking samples until the time as set in "Test Length" has elapsed.

```
 DATA LOGGING    ⅢⅢ⊦
Measurements
Log Mode      Cont.-tim
Log Settings
Choose Test    Test 00
Name Test
View Data
Delete Data
% Memory

  <            >
```

```
LOG MODE       ⅢⅢ⊦

     Manual
     Auto-save
     Cont.-key
     Cont.-time
     Program 1
     Program 2
```
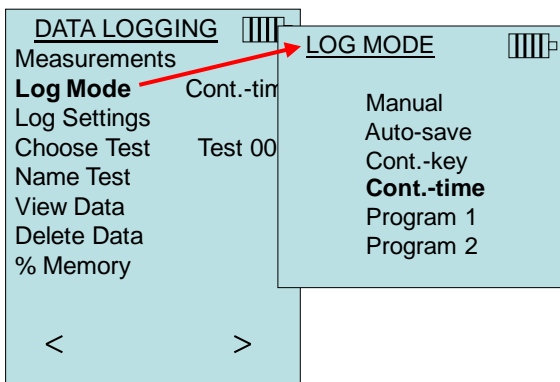
When set to **Cont.-time**, the log interval and test length can be adjusted.
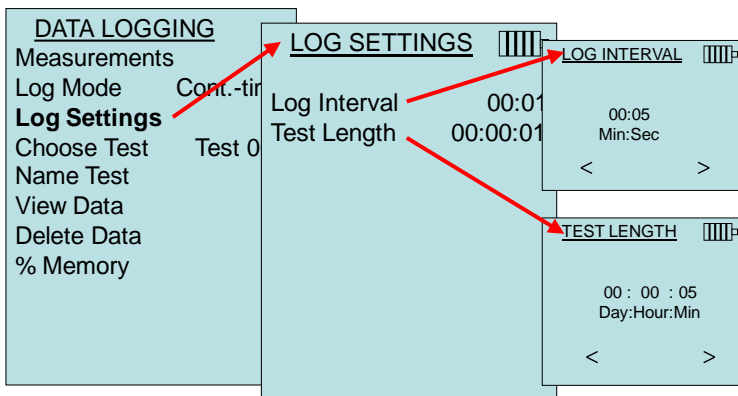
DATA LOGGING
Measurements
Log Mode   Cont.-ti
Log Settings
Choose Test   Test 0
Name Test
View Data
Delete Data
% Memory

LOG SETTINGS   ‖‖‖
Log Interval   00:01
Test Length   00:00:01

LOG INTERVAL   ‖‖‖
00:05
Min:Sec
<   >

TEST LENGTH   ‖‖‖
00 : 00 : 05
Day:Hour:Min
<   >

N O T E

Pressing the ▲▼ keys simultaneously will lock the keypad to prevent unauthorized adjustments to the instruments during unattended logging. A "Lock" symbol will appear on the display. To unlock the keypad, press the ▲▼ keys simultaneously. The "Lock" symbol will disappear.

Program 1 and Program 2

Program 1 and **Program 2** are customized data logging setup programs. Setting them up is performed using TSI's TrakPro™ Data Analysis software.

DATA LOGGING   ‖‖‖
Measurements
Log Mode   Cont.-ti
Log Settings
Choose Test   Test 00
Name Test
View Data
Delete Data
% Memory

<   >

LOG MODE   ‖‖‖
Manual
Auto-save
Cont.-key
Cont.-time
Program 1
Program 2

TRAKPRO is a trademark of TSI Incorporated.

VelociCalc Logging Setup

Serial Number	7565X0823014	Memory Used	0%	Number of Tests Logged	0

OK

Cancel

	Program1	Program2
Test Name	LOG1	LOG2

Channels to Log

Program1:
Velocity
Flow
Pitot Velocity
CO2
Pressure
Temperature
Humidity
Dewpoint
Wetbulb

Program2:
Velocity
Flow
Pitot Velocity
CO2
Pressure
Temperature
Humidity
Dewpoint
Wetbulb

	Program1	Program2
Start Date (MM/dd/yyyy)	11/13/2009	11/13/2009
Start Time (hh:mm)	12:00	13:00
Log Interval (mm:ss)	0 1	0 1
Length of Each Test (dd:hh:mm)	0 0 5	0 0 1
Number of Tests	1	1
Time between Tests (dd:hh:mm)	0 0 0	0 0 0

Memory Left After Programs   99%

For more information, refer to the TrakPro™ Data Analysis Software User's Guide which can be found on the TrakPro™ software CD which is included with the 7575.

Choose Test

Test IDs consist of a group of Samples that are used to determine statistics (average, minimum, and maximum) of a measurement application**.** The 7575 can store 26,500+ samples and 100 test IDs (one sample can contain fourteen measurement types)**.** Example: Each duct traverse will have its own Test ID consisting of several Samples**.**

Pressing **NEW** will advance to the next available Test ID. Pressing **DATES** will list the date the Test was taken.

```
 DATA LOGGING  [IIII]
Measurements
Log Mode      Cont.-tim
Log Settings
Choose Test   Test 00
Name Test
View Data
Delete Data
% Memory

    <          >
```

```
 CHOOSE TEST  [IIII]
Test 001     9 Samples
Test 002     7 Samples
Test 003     0 Samples
Test 004     0 Samples
Test 005     0 Samples
Test 006     0 Samples
Test 007     0 Samples
Test 008     0 Samples
Test 009     0 Samples
Test 010     0 Samples

--\/----
  NEW          DATES
```
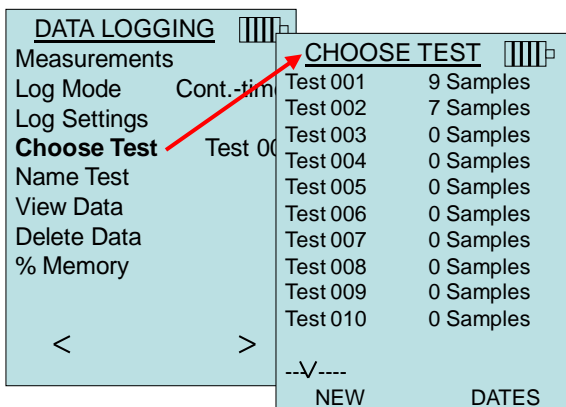
Name Test

This option allows for customizing the Test ID name using 8 characters maximum. Use the arrow keys to move the cursor to a desired location, press ↵ to accept. Repeat until the desired name appears. Press **SAVE** to store custom ID name.

```
 DATA LOGGING  [IIII]
Measurements
Log Mode      Cont.-tim
Log Settings
Choose Test   Test 00
Name Test
View Data
Delete Data
% Memory

    <          >
```

```
 NAME TEST     [IIII]

    T S I 1 2 3 4 5
    – – – – – – – –

   0 1 2 3 4 5 6 7 8 9
   A B C D E F G H I J
   K L M N O P Q R S T
   U V W X Y Z _ ←

        SAVE
    <          >
```
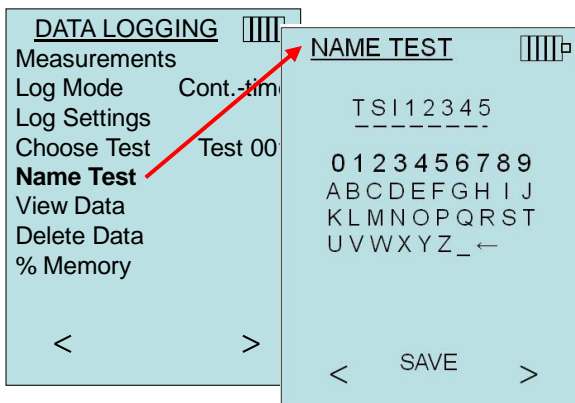
View Data

Choose Test

To view stored data, first select the Test ID that contains the data to be recalled. This is accomplished in the "**Choose Test**" menu.

```
DATA LOGGING  ▐▌▌▐┑
Measurements          VIEW DATA
Log Mode      Auto-sav  Choose Test ──── Test 001 ──►  CHOOSE TEST  ▐▌▌▌┑
Log Settings           View Stats              Test 001     9 Samples
Choose Test   Test 00  View Samples            Test 002     7 Samples
Name Test              Print Test              Test 003     0 Samples
View Data                                      Test 004     0 Samples
Delete Data                                    Test 005     0 Samples
% Memory                                       Test 006     0 Samples
                                               Test 007     0 Samples
                                               Test 008     0 Samples
                                               Test 009     0 Samples
                                               Test 010     0 Samples

                                               --∨----
                                                        DATES
```

View Stats

Displays statistics (average, minimum, and maximum) of a selected Test ID and the number of samples, date and time the samples were taken.

```
DATA LOGGING  ▐▌▌▐┑
Measurements          VIEW DATA       ▐▌▌▌┑
Log Mode      Auto-sav  Choose Test    Test 001
Log Settings           View Stats
Choose Test   Test 00  View Samples
Name Test              Print Test
View Data
Delete Data
% Memory
```
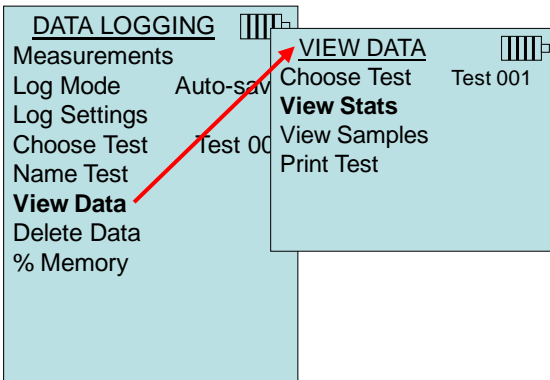
Use the ◀ and ▶ arrow keys to view statistics of all the measurement parameters stored in a Test ID.

TEST 001 ▯▯▯▯▯		TEST 001 ▯▯▯▯▯		TEST 001 ▯▯▯▯▯	
CO2		Temperature		%RH	
Avg	750 ppm	Avg	78.2 °F	Avg	12.2 %RH
Min	747 ppm	Min	78.1 °F	Min	11.1 %RH
Max	752 ppm	Max	78.3 °F	Max	12.9 %RH
# Samples	9	# Samples	9	# Samples	9
10/31/08 07:01:39 AM		10/31/08 07:01:39 AM		10/31/08 07:01:39 AM	
< PRINT >		< PRINT >		< PRINT >	

Example: TEST 001 has 9 samples, each sample consists of a pressure, temperature, and relative humidity reading. Use the **<** or **>** keys to view statistics of each measurement parameter.

The 7575-X can send this data to the optional Model 8934 wireless printer or PC capable of Bluetooth communications. To use the **PRINT** command, Bluetooth communications must be established between the 7575-X and the Model 8934 wireless printer or PC set up with Bluetooth communications.

View Samples

```
 VIEW DATA        [||||⊃
Choose Test    Test 001
View Stats
View Samples
Print Test

```
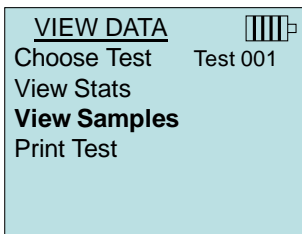
Use the ◄ and ► arrow keys to view samples of all the
measurement parameters stored in a Test ID.

```
   TEST 001    [||||⊃          TEST 001   [||||⊃          TEST 001   [||||⊃
     Velocity                   Temperature                  %rh
Sample 1      218 ft/min    Sample 1        73.5 °F    Sample 1        15.1%rh
Sample 2      280 ft/min    Sample 2        73.7 °F    Sample 2        14.2%rh
Sample 3      316 ft/min    Sample 3        73.8 °F    Sample 3        13.8%rh
Sample 4      399 ft/min    Sample 4        73.8 °F    Sample 4        13.8%rh
Sample 5      188 ft/min    Sample 5        73.6 °F    Sample 5        13.5%rh
Sample 6      306 ft/min    Sample 6        73.6 °F    Sample 6        13.6%rh
Sample 7      313 ft/min    Sample 7        73.5 °F    Sample 7        13.6%rh
Sample 8      294 ft/min    Sample 8        73.4 °F    Sample 8        13.5%rh
Sample 9      309 ft/min    Sample 9        73.4 °F    Sample 9        13.5%rh
    V                            V                          V
  <    PRINT   >             <   PRINT   >              <   PRINT   >
```

The 7575-X can send this data to the optional Model 8934
wireless printer or PC capable of Bluetooth communications. To
use the **PRINT** command, Bluetooth communications must be
established between the 7575-X and the Model 8934 wireless
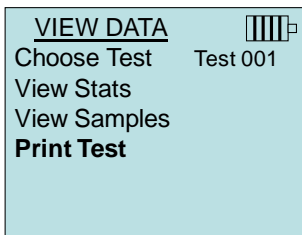printer or PC set up with Bluetooth communications.

Print Test

Press ⏎ to print all statistics and samples for the selected Test ID.

```
  VIEW DATA      ⅢⅢⅡ▷
Choose Test    Test 001
View Stats
View Samples
Print Test
```
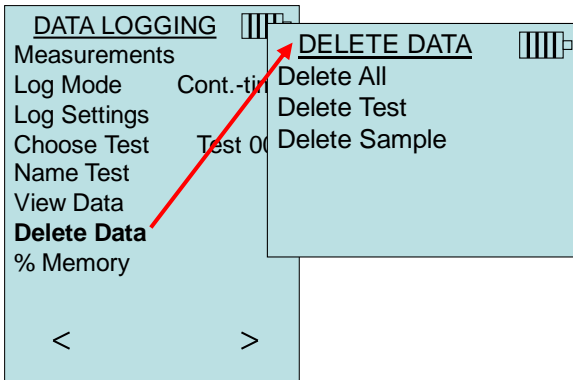
The 7575-X can send this data to the optional Model 8934 wireless printer or PC capable of Bluetooth communications. To use the **PRINT** command, Bluetooth communications must be established between the 7575-X and the Model 8934 wireless printer or PC set up with Bluetooth communications.

For more information on establishing Bluetooth connections, refer to TSI Applications Note TSI-150.

Delete Data

Use this to delete all data, delete test or delete sample.

DATA LOGGING
Measurements
Log Mode   Cont.-ti
Log Settings
Choose Test   Test 00
Name Test
View Data
Delete Data
% Memory

<   >

DELETE DATA
Delete All
Delete Test
Delete Sample

Delete All will clear stored data in all Test ID's.

DELETE DATA
Delete All
Delete Test
Delete Sample

DELETE ALL

Are you sure?

YES   NO
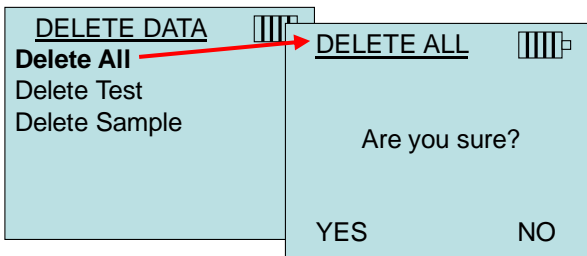
Delete Test will clear stored data in an individual Test ID selected by the user.

DELETE DATA
Delete All
Delete Test
Delete Sample

DELETE TEST
Test 001   14 Samp
Test 002   10 Samp
Test 003   12 Samp
Test 004   8 Samp
Test 005   7 Samp
Test 006   15 Samp
Test 007   0 Samp
Test 008   0 Samp
Test 009   0 Samp
Test 010   0 Samples

--√----   DATES

DELETE TEST

Delete Test 005.
Are you sure?

YES   NO
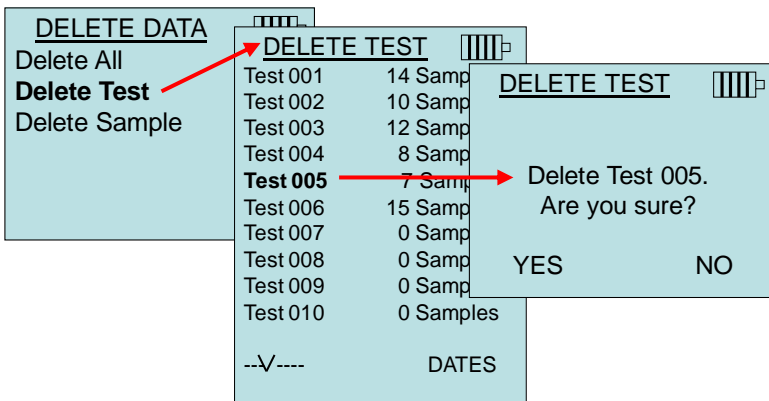
Delete Sample will clear the last sample in an individual Test ID selected by the user.

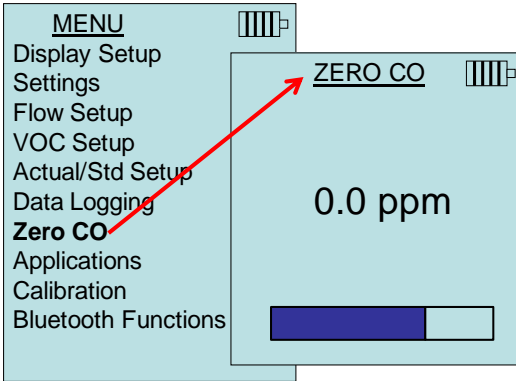| DELETE DATA		DELETE SAMPLE		
Delete All		Test 001	14 Sam	DELETE SAMPLE
Delete Test		Test 002	10 Sam	
Delete Sample		Test 003	12 Sam	
		Test 004	8 Sam	Test 005
		Test 005	7 Sam	Sample 7
		Test 006	15 Sam	10/31/10 04:55:03 PM
		Test 007	0 Sam	
		Test 008	0 Sam	DELETE
		Test 009	0 Sam	
		Test 010	0 Samples	
		--∨----	DATES	

% Memory

This option displays the memory available. **Delete All**, under **Delete Data**, will clear memory and reset the memory available to 100%.

MEMORY	
Test ID	83 %
Sample	92 %

ZERO CO

This menu item applies to TSI probe Model 982 which can measure carbon monoxide (CO). Turn the instrument on for a minimum of five minutes to let it warm up before zeroing the CO sensor. Zero CO will zero the CO sensor readings that may have drifted. Initiating the Zero CO function will show the sensor CO reading and the time remaining.

MENU
Display Setup
Settings
Flow Setup
VOC Setup
Actual/Std Setup
Data Logging
Zero CO
Applications
Calibration
Bluetooth Functions

ZERO CO

0.0 ppm

N O T I C E
The Zero CO function should be performed in an area where no combustion is taking place which may affect zeroing of the sensor.

APPLICATIONS

This menu option includes specialized measurement protocols used to perform various tests or investigations. You can choose Draft Rate, Heat flow, Turbulence, and % Outside Air in the Applications menu. For more information on these applications, refer to the following information:

- Draft Rate: Application Note TSI-142
- Heat Flow: Application Note TSI-124
- Turbulence Intensity: Application Note TSI-141
- Percent Outside Air: Application Note TSI-138
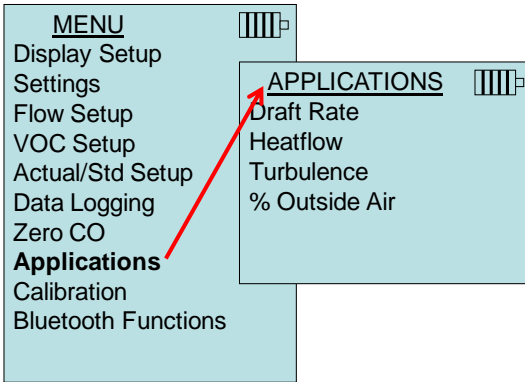
CALIBRATION

The Calibration Menu lists measurement parameters that can be adjusted in the field. The appropriate detachable probes must be attached to the 7575 before field calibration can be undertaken except for pressure and barometric pressure calibration.
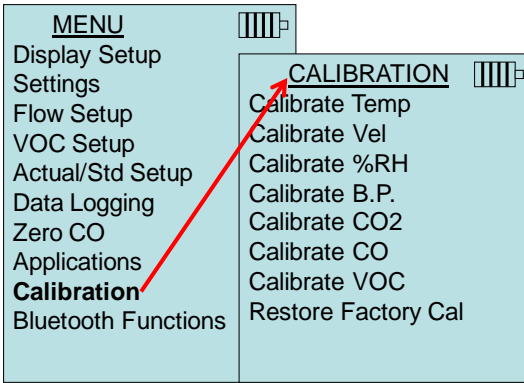
For more information on performing field calibrations, refer to TSI Applications Note TSI-146.

MENU

Display Setup
Settings
Flow Setup
VOC Setup
Actual/Std Setup
Data Logging
Zero CO
Applications
Calibration
Bluetooth Functions

CALIBRATION

Calibrate Temp
Calibrate Vel
Calibrate %RH
Calibrate B.P.
Calibrate CO2
Calibrate CO
Calibrate VOC
Restore Factory Cal

BLUETOOTH FUNCTIONS (Model 7575-X only)

The Q-Trak Model 7575-X contains a Bluetooth Functions menu which is used to adjust parameters to assist with wireless connections to other Bluetooth capable devices.

MENU

Display Setup
Settings
Flow Setup
VOC Setup
Actual/Std Setup
Data Logging
Zero CO
Applications
Calibration
Bluetooth Functions

BLUETOOTH FUNCT.

Discover Devices
Discoverability   Enable
PINcode   0000
AutoConnects   1
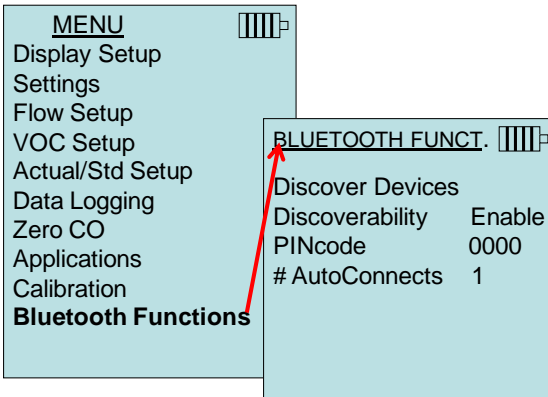
Discover Devices

Start the Bluetooth process of finding other devices from the Q-Trak Model 7575-X.

Discoverability

Describes whether another device can discover the Q-Trak Model 7575-X. Options include:

Disable	The instrument is not discoverable by other devices.
Temporary	Allows the instrument to be discoverable until another device pairs with it or until the instrument power is turned off and back on.
Enable	Makes the instrument discoverable indefinitely.

PINcode

The PINcode is a security key to be entered into the computer if prompted. The factory default PINcode is **0000**.

N O T E
PINcode must be set to **0000** in order to use 8934 printer.

 # AutoConnects

Specifies how many times the instrument will attempt to reattach to a paired device after the power is turned on. For this option, the instrument Discoverability setting must be enabled. Settings are 0 to 5 times.

For more information on establishing Bluetooth connections, refer to TSI Applications Note TSI-150.

Printing Data Using the Portable Printer (Model 7575-X only)

To print logged data, first enter the DATALOGGING menu. Then, use the **CHOOSE TEST** item to select the data to be printed. After the test is selected, use the **VIEW STATS** and **VIEW SAMPLES** items to select statistics or individual data points to view and print. After selecting **VIEW STATS** or **VIEW SAMPLES**, press the **PRINT** key to print the data.

TrakPro™ Data Analysis Software

The Q-Trak Model 7575 comes with special software called TrakPro™ Data Analysis Software, which is designed to provide you with maximum flexibility and power.

Follow the instructions on the label of the TrakPro™ software to install the software on your computer. TrakPro™ software contains a very comprehensive Help Function. This utility provides all the necessary information to guide you in all aspects of software operation. The software is shipped on a CD-ROM. Updates are available from the TSI® website at http://www.tsi.com/SoftwareDownloads.

To download data from the Model 7575, connect the supplied computer interface USB cable to the Model 7575 and to a computer USB port. Any USB port can be used.

Chapter 4

Maintenance

The Model 7575 and probe accessories require very little maintenance to keep it performing well.

Recalibration

To maintain a high degree of accuracy in your measurements, we recommend that you return your Model 7575, 960 series thermoanemometer probes, IAQ and VOC probes to TSI® for annual recalibration. Please contact one of TSI® Incorporated's offices or your local distributor to make service arrangements and to receive a Service Request number. To fill out an online "Service Request" form, visit TSI's website at http://service.tsi.com.

U.S. & International
TSI Incorporated
500 Cardigan Road
Shoreview MN 55126-3996
Tel: (800) 680-1220
      (651) 490-2860
Fax: (651) 490-3824

The Model 7575 and accessory probes can also be recalibrated in the field using the CALIBRATION menu. These field adjustments are intended to make minor changes in calibration to match a user's calibration standards. The field adjustment is **NOT** intended as a complete calibration capability. For complete, multiple-point calibration and certification, the instrument must be returned to the factory.

Cases

If the instrument case or storage case needs cleaning, wipe it off with a soft cloth and isopropyl alcohol or a mild detergent. Never immerse the Model 7575. If the enclosure of the Model 7575 or the AC adapter becomes broken, it must be replaced immediately to prevent access to hazardous voltage.

Storage

Remove the batteries when storing the unit for more than one month to prevent damage due to battery leakage.

(This page intentionally left blank)

Chapter 5

Troubleshooting

Table 5-1 lists the symptoms, possible causes, and recommended solutions for common problems encountered with the Model 7575. If your symptom is not listed, or if none of the solutions solves your problem, please contact TSI.

Table 5-1: Troubleshooting the Model 7575

Symptom	Possible Causes	Corrective Action
No Display	Unit not turned on	Switch unit on.
	Low or dead batteries	Replace batteries or plug in AC adapter.
	Dirty battery contacts	Clean the battery contacts.
Velocity reading fluctuates unstable	Fluctuating flow	Reposition probe in less turbulent flow or use longer time constant.
No response to keypad	Keypad locked out	Unlock keypad by pressing ▲▼ keys simultaneously.
Instrument Error message appears	Memory is full	Download data if desired, then **DELETE ALL** memory.
	Fault in instrument	Factory service required on instrument.
Probe Error message appears	Fault in probe	Factory service required on probe.
Probe is plugged in, but the instrument does not recognize it	Probe was plugged in when the instrument was ON	Turn instrument OFF and then turn it back ON.

W A R N I N G !

Remove the probe from excessive temperature immediately: excessive heat can damage the sensor. Operating temperature limits can be found in Appendix A, Specifications.

(This page intentionally left blank)

Appendix A

Specifications

Specifications are subject to change without notice.

CO_2:

Range:	0 to 5000 ppm
Accuracy[1]:	±3% of reading or ±50 ppm, whichever is greater
Resolution:	1 ppm
Sensor type:	Non-Dispersive Infrared (NDIR)

Temperature:

Range:	14 to 140°F (-10 to 60°C)
Accuracy:	±1.0°F (±0.5°C)
Resolution:	0.1°F (0.1°C)
Response time:	30 seconds (90% of final value, air velocity at 400 ft/min [2 m/s])
Type:	Thermistor

Relative Humidity:

Range:	(5 to 95% RH)
Accuracy[2]:	±3% RH (includes ±1% hysteresis.)
Resolution:	0.1% RH
Response time:	20 seconds (for 63% of final value)
Sensor type:	Thin-film capacitive

% Outside Air

Range	0 to 100%
Resolution	0.1%

Barometric Pressure

Range	20.36 to 36.648 in. Hg (517.15 to 930.87 mm Hg)
Accuracy	±2% of reading

CO Sensor:

Range:	0 to 500 ppm
Accuracy:	±3% of reading or 3 ppm whichever is greater [add ±0.5%/°C (0.28%/°F) away from calibration temperature]
Resolution:	0.1 ppm
Response time:	<60 seconds to 90% of final value.
Sensor type:	Electro-chemical

Instrument Temperature Range:

Operating (Electronics): 40 to 113°F (5 to 45°C)
Storage: -4 to 146°F (-20 to 60°C)

Instrument Operating Conditions:

Altitude up to 4000 meters
Relative humidity up to 80% RH, non-condensing
Pollution degree 1 in accordance with IEC 664
Transient over voltage category II

Data Storage Capabilities:

Range: Logs up to 56,035 data points with key (4) measured parameters enabled, 38.9 days at 1-minute log intervals

Logging Interval:

Intervals: 1 second to 1 hour (user selectable)

Time Constant:

Intervals: 1 sec, 5 sec, 10 sec, 20 sec, 30 sec, (user selectable)

External Meter Dimensions:

3.8 in. × 8.3 in. × 2.1 in. (9.7 cm × 21.1 cm × 5.3 cm)

Meter Probe Dimensions (Model 982):

Probe length: 7.0 in. (17.8 cm)
Probe diameter of tip: 0.75 in. (1.9 cm)

Meter Weight:

Weight with batteries: 0.8 lbs (0.36 kg)

Power Requirements:

Batteries: Four AA-size alkaline or rechargeable
    or
AC Adapter p/n 801761
    Input: 90 to 240 VAC, 50 to 60 Hz
    Output: 9 VDC, 2A

[1] At 77°F (25°C). Add uncertainty of ±0.2%/°F (±0.36%/°C) away from calibrated temperature.
[2] At 77°F (25°C). Add uncertainty of ±0.03% RH/°F (±0.05% RH/°C) away from calibrated temperature.

Appendix B

Optional Plug-in Probes

Thermoanemometer Probes	
Model	**Description**
960	Air Velocity and Temperature, Straight Probe
962	Air Velocity and Temperature, Articulating Probe
964	Air Velocity, Temperature, and Humidity, Straight Probe
966	Air Velocity, Temperature, and Humidity, Articulating Probe

Rotating Vane Anemometer Probes	
Model	**Description**
995	4 in. (100 mm) Rotating Vane, Air Velocity, and Temperature

Temperature and Relative Humidity Probe	
Model	**Description**
800220	Temperature and humidity probe

Indoor Air Quality (IAQ) Probes	
Model	**Description**
980	Indoor Air Quality Probe, Temperature, Humidity, CO_2
982	Indoor Air Quality Probe, Temperature, Humidity, CO_2 and CO

Volatile Organic Compounds (VOC) Probes	
Model	**Description**
984	Low Concentration (ppb) VOC and Temperature
985	High Concentration (ppm) VOC and Temperature
986	Low Concentration (ppb) VOC, Temperature, CO_2, and Humidity
987	High Concentration (ppm) VOC, Temperature, CO_2, and Humidity

K-alloy Thermocouple Probes	
Model	**Description**
792	Surface Temperature Probe
794	Air Temperature Probe

(This page intentionally left blank)

TSI Incorporated – Visit our website **www.tsi.com** for more information.

USA	**Tel:** +1 800 680 1229	**India**	**Tel:** +91 80 67877200
UK	**Tel:** +44 149 4 459200	**China**	**Tel:** +86 10 8219 7688
France	**Tel:** +33 1 41 19 21 99	**Singapore**	**Tel:** +65 6595 6388
Germany	**Tel:** +49 241 523030		

P/N 6004850 Rev H   ©2022 TSI Incorporated   Printed in U.S.A.