

# **AIR-SURE LEAK DETECTOR**

**USER MANUAL** 





# Welcome

Thank you for purchase of the Air-Sure Leak Detector. We are pleased that you have selected our equipment for your membrane testing needs.



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**Caution:** Changes or modifications made to the Leak Detector that are not expressly approved by Retro-Specs Ltd. will void the user's authority to operate the equipment.

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# Safety and General Information

IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION OF YOUR AIR-SURE LEAK DETECTOR. DO NOT ATTEMPT TO OPERATE THE LEAK DETECTOR UNTIL YOU HAVE THOROUGHLY READ AND UNDERSTAND ALL OPERATING INSTRUCTIONS AND SAFETY PROCEDURES CONTAINED IN THIS MANUAL. FAILURE TO COMPLY WITH THESE OPERATING INSTRUCTIONS AND SAFETY PROCEDURES MAY RESULT IN ACCIDENTS INVOLVING FIRE, ELECTRIC SHOCK, AND/OR SERIOUS PERSONAL INJURY. SAVE THIS MANUAL AND REVIEW IT FREQUENTLY FOR CONTINUED SAFE OPERATION.

## General Use

- Use the Leak Detector for the correct purpose. Do not use it for anything other than what it was
  designed to do. Use only Air-Sure Test Solution with the Leak Detector. Use of an attachment
  not recommended by the distributor may result in a risk of fire, electric shock, or personal injury.
- Never use the Leak Detector in an explosive atmosphere. Normal sparking of the motor could ignite flammable liquid, gases, fumes or dust. Do not place the Leak Detector near fire or extreme heat.
- Use safety glasses when the Leak Detector is in operation.
- Do not operate the tool when tired, or while under the influence of drugs, alcohol or medication.
- Keep the work area clean. Cluttered or dirty areas that have been improperly cleaned of residual Test Solution are potential hazards.
- Avoid dangerous environments. Do not work on wet and/or slippery surfaces. Do not carry the Leak Detector up steep inclines or ladders. Follow the proper hoisting guidelines for your area.
- Do not overreach. Keep proper footing and balance at all times. Do not use the Leak Detector while on a ladder or on unstable support.

## Storage and Maintenance

- Store the Leak Detector and Test Solution in a dry and secure area out of reach of children.
- Keep the handle and the body of the Leak Detector dry, clean and free from oil and grease.
   Always use a clean cloth when wiping the Leak Detector. Never use brake fluids, gasoline, petroleum-based products, or any strong solvents for cleaning.
- Never open or disassemble the Leak Detector.
- Check damaged parts. Discontinue using the Leak Detector if any part of the unit appears damaged. Refrain from further use until the unit is properly repaired or replaced at an authorized service center.

## Air-Sure Test Solution

Do not use the Air-Sure Test Solution to detect oxygen or other gas leaks.

- Do not use the Air-Sure Test Solution on 'breathable' membranes, such as building-wrap.
- If the Air-Sure Test Solution comes into contact with the eyes, flush eyes immediately with lukewarm water. If irritation persists, contact your doctor.

#### Battery and Charging

- Do not operate the Leak Detector while it is being charged.
- Use only the battery charger provided with the Leak Detector. Use of another charger may
  damage the unit, may cause serious injury, and will void the warranty. The charger was provided
  for use only with this Leak Detector. To reduce the risk of injury, do not charge any other
  batteries, or any other piece of equipment, with this battery charger.
- Guard against electrical shock by preventing body contact with grounded surfaces while charging the Leak Detector.
- To reduce the risk of electric shock, unplug the charger from the power outlet before attempting to perform any maintenance or cleaning. Once unplugged, the charger may be wiped clean with a clean, damp cloth and allowed to dry before used again.
- If the battery is punctured, and the battery fluid comes into contact with the skin, wash the skin immediately with soap and water, and seek medical attention. If the fluid gets into the eyes, flush eyes immediately with lukewarm water for at least ten minutes, and seek immediate medical attention. Return the damaged Leak Detector to an authorized service center or to your local distributor.
- Do not expose the battery charger to any liquid or frozen liquid.
- To reduce the risk of damage to the charger cord, pull it by the plug when disconnecting the charger. Do not step on the cord, or subject it to damage or stress.
- An extension cord should not be used in conjunction with the charger. Use of an extension cord
  in this manner could result in fire or electric shock.
- Do not operate the charger with a damaged cord or plug. If the cord or plug is damaged, have them replaced immediately by a qualified electrician.
- Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. It must be replaced.
- Do not operate the charger outdoors.
- Disconnect the charger from the power supply when not in use.

# Introduction to the Air-Sure Leak Detection System

The Air-Sure Leak Detection System is an effective, efficient and affordable testing system designed to find leaks in single and two-ply membranes used in all applications. When used in conjunction with visual inspection, it provides an accurate reflection of the quality of installation of the membrane, and will assist in determining whether the completed system is in adherence with installation specifications and building codes.

When a test is performed, the Air-Sure Leak Detector will indicate whether there are leaks in the test sample. It is a simple pass/fail test. Areas where the membrane has been penetrated or damaged (fasteners and masonry ties), or where membrane continuity has been compromised (seams and joints) are just some of the details which can be tested using the Leak Detector. The Air-Sure Leak Detector allows for the testing of the quality of workmanship quickly, efficiently, and on the job site, with little or no disruption to the critical path of construction.

If you have any questions regarding the Air-Sure Leak Detection System, please contact your local distributor.



## What's in the Box

Your Air-Sure Leak Detector comes equipped with a battery already installed, battery charger, Air-Sure Test Solution, and four bottles with daubers. You can purchase other accessory items and profiles for maximum performance.



To purchase other Air-Sure Leak Detector accessories and profiles, contact your local Air-Sure distributor.

# **Charging the Battery**

New machines are shipped with batteries partially charged. Before using your Air-Sure Leak Detector, you should charge the battery, using the following instructions.

1. Plug the battery charger into the Leak Detector. The socket is located on the face of the control panel.





- 2. Plug the other end of the charger into the appropriate electrical outlet.
- 3. A full recharge can be achieved in approximately three (3) hours. Although the built-in circuitry will prevent overcharging, it is recommended that the charger be disconnected after this time. To reduce the risk of damage to the charger cord, pull it by the plug when disconnecting the charger. Do not step on the cord, or subject it to damage or stress. Disconnect the charger from the power supply when not in use. As the batteries are sealed lead acid gel batteries, they are not subject to the effects of memory, and may be charged within any level of charge remaining. The Air-Sure Leak Detector is designed to achieve approximately 130 tests before recharging is required.

Charging Care - When using the battery charger, adhere to the following safety guidelines:

- DO NOT OPERATE THE LEAK DETECTOR WHILE IT IS BEING CHARGED.
- The Leak Detector should be charged in a location where the temperature is between 10°C (50°F) and 40°C (104°F). Do not operate the charger outdoors.
- Guard against electrical shock by preventing body contact with grounded surfaces while charging the Leak Detector.
- Do not expose the battery charger to any liquid or frozen liquid.
- An extension cord should not be used in conjunction with the charger. Use of an
  extension cord in this manner could result in fire or electric shock.
- Do not operate the charger with a damaged cord or plug. If the cord or plug is damaged, have them replaced immediately by a qualified electrician.
- Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. It must be replaced.
- To reduce the risk of electric shock, unplug the charger from the power outlet before attempting to perform any maintenance or cleaning. Once unplugged, the charger may be wiped clean with a clean, damp cloth and allowed to dry before used again.

## Battery Use

Do not attempt to change the battery, or use non-Air-Sure batteries. The Air-Sure warrantee does not cover damage caused from using non-Air-Sure batteries and/or battery chargers.

If the battery is punctured, and the battery fluid comes into contact with the skin, wash the skin immediately with soap and water, and seek medical attention. If the fluid gets into the eyes, flush eyes immediately with lukewarm water for at least ten minutes, and seek immediate medical attention. Return the defective Leak Detector to an authorized service center or to your local distributor.

# Getting to Know Your Air-Sure Leak Detector

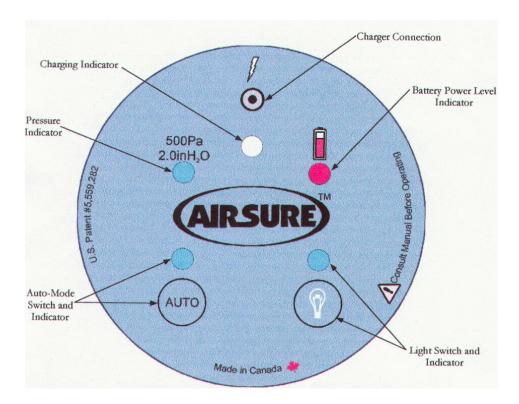
## Hardware Components

The **test chamber** is the clear, plastic dome located on the end of the Air-Sure Leak Detector. The black, rubber strip that runs along the bottom of the test chamber is the **chamber seal**. The **nose cone** is located inside the test chamber, and is attached to the Leak Detector body. Contained within the nose cone are the **pressure switch**, and the **nose cone light**. To remove or change the test chamber, first locate the **ring-lock**, which surrounds the nose cone, and turn it in a counterclockwise motion. Once the ring-lock is removed, the test chamber simply pulls off.

Located within the Leak Detector body are the **motor**, the **battery**, and **circuitry**. The **control panel** is located on the face of the Leak Detector body. The **trigger switch** is found on the handle, which is attached to the body.

## **Control Panel**

It is important to be familiarized with the control panel before operating the Air-Sure Leak Detector.



**Auto-Mode Switch and Indicator.** When the Auto-Mode switch is engaged, the pressure differential created by the Leak Detector can increase to a maximum of 500 Pa. When the Auto-Mode switch is disengaged, the pressure differential created by the Leak Detector can increase to a maximum of approximately 2,500 Pa. When the Auto-mode Indicator is lit, the Auto-mode switch is engaged.

**Note:** Auto-Mode 'on' is the default setting on the Leak Detector.

**Pressure Indicator.** The pressure sensor within the main body of the Leak Detector is set to approximately 500 Pa (2.0" water). When the pressure differential across the test chamber reaches this level, the Leak Detector will sound an alarm, the Pressure Indicator light will illuminate, and the unit will automatically shut off indicating the completion of the test (provided the Auto-mode switch is the default 'on' position).

**Battery Power Level Indicator.** The Battery Power Level Indicator light will remain lit when the battery is at the required level for operation. As the battery begins to wear down, the Battery Power Indicator light will flash, indicating that the battery requires recharging. As the battery continues to decrease in energy, the light will begin flashing more slowly.

**Charging Indicator.** The Charging Indicator will become illuminated when the battery charger is plugged into the Leak Detector, and the battery is receiving a charge.

**Light Switch and Indicator.** When the Light Switch is turned on, the headlight in the nose cone will be activated. The corresponding Light Indicator on the faceplate will illuminate when the Light Switch is activated.

**Note:** The headlight should be used only to illuminate the test area and is not intended as a replacement for any auxiliary lighting necessary to perform this, or any other, work.

## Air-Sure Test Solution

Use only Air-Sure Test Solution with the Leak Detector. The Air-Sure Test Solution has been specially formulated such that it will not have any adverse effects upon single-ply waterproofing, roofing, or air barrier membranes, or on the Leak Detector unit. Do not use the Air-Sure Test Solution on 'breathable' membranes, such as building-wrap, as it will break down the surface tension of moisture on paper, causing it to pass through the building wrap.

## Do not use the Air-Sure Test Solution to detect oxygen leaks.

If the Air-Sure Test Solution comes into contact with the eyes, flush eyes immediately with lukewarm water. If irritation persists, contact your doctor.

Before conducting any onsite testing using the Air-Sure Test Solution, check the expiry date on the shipping bottle to ensure that the Test Solution has not passed its expiry date. Even if the expiry date has not been reached, ensure that the Test Solution is still functional before using it for onsite testing. Conduct a 'test' using the Air-Sure Leak Detector and Test Solution on a known leak area to ensure that the Test Solution still 'bubbles' (see Using the Air-Sure Leak Detector).

# Using the Air-Sure Leak Detector

There are five steps in correctly performing a test with the Air-Sure Leak Detector:

- 1. Clean the area around the detail being tested.
- 2. Apply Test Solution to the sample area.
- 3. Place the Leak Detector over the detail.
- 4. Activate the Leak Detector.
- 5. Clean the test area of residual Test Solution.

## Cleaning the Area Around the Detail Being Tested

Ensure that the test area is free of dirt, dust and debris. The test area should not be hot (from torching), frosted, or extremely wet (slight dampness around the test area will not compromise the results of the test). The area being tested should be free of ice, which may act to 'plug' the leak.

## Applying Test Solution to the Sample Area

Apply the Test Solution to the sample area using the dauber included with the 250 ml bottles. When applying the Test Solution, ensure the entire sample area is covered with a wet film of solution. In the case of a penetration, ensure the entire area is covered. In the case of a seam or joint, ensure that there is solution pushed into the seam or joint. Do not overapply Test Solution (the Test Solution has been overapplied if the Test Solution has formed a froth or foam over the sample area instead of a thin film).

The Air-Sure Test Solution is specially designed to cling to membranes and metal details. However, testing of the detail should be conducted immediately after application of the solution in order to achieve optimum results.

Take care not to spill the Test Solution. Secure the cap back onto the dauber bottle when not in use to avoid spilling Test Solution.





## Placing the Leak Detector Over the Detail

Center the chamber over the detail, holding the unit firmly against the membrane. When the seal is in continuous contact with the substrate, the machine is ready for activation. It is not absolutely necessary to achieve a perfect seal between the test chamber and the membrane, as the machine will adjust for any extraneous leakage that may occur.

When placing the chamber over the detail, avoid contact between the Test Solution and the chamber seal. If there is solution under the seal, bubbles may form at the seal, producing a false test result. If this occurs, a retest should be performed in order to achieve optimum test results.





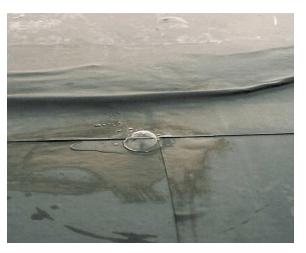
## Activating the Leak Detector

Once the chamber has been correctly placed over the test area, the machine is ready for activation. Begin the test by pulling and holding down the trigger switch located on the handle. The test can be stopped whenever necessary by releasing the trigger switch.

When the test is run, if the solution around the test area bubbles, a leak is present. If the solution does not bubble, the detail is airtight.

Careful observation is important as bubbles of different sizes can form anywhere within the test area where solution is present. Bubbles may also form and pop quickly. A very large leak may not form a bubble, but rather blow solution away from the detail. This may also be caused by lack of solution on the testing area. The movement of the solution in this fashion usually signifies a leak. However, a retest is advised in this situation.

When a leak has been identified, the test should be halted immediately, letting the pressure within the test chamber decrease before removing the machine from the detail. The detail can then be marked for further repair, or the bubble can be photographed if documentation is required for the particular job.



If the test procedure is followed correctly with the machine in Auto Mode, the unit will automatically shut off when a pressure differential of 500 Pa (2.0 inches of water column) is reached.

Record the test results.

**Note:** This does not imply that the workmanship of the detail is to the specifications of the particular job, nor does it imply that the detail in question will not leak at a higher pressure differential.



## Cleaning the Test Area of Residual Test Solution

Although testing has shown that the Test Solution causes no damage to the membrane or metal details, it is essential that all residual test solution be removed from all working surfaces once testing has been completed. Injury may occur by slipping on a surface that has had solution applied to it. Wipe the detail with a clean, dry cloth, to remove test solution. Wash area with water and wipe dry. Check the surface by running your hand along the test area. If the test area is slippery to the touch, then repeat the cleaning procedure until the surface is no longer slippery. It is the responsibility of the tester to remove all residual Test Solution.





**Note:** Prior to using the Air-Sure Test Solution, ensure that the Test Solution has not passed its expiry date, and is functioning as intended. The solution should be tested on a 'known' leak; if the solution does not bubble, it has expired.

**Notes on Using the Air-Sure Leak Detector.** When using the Air-Sure Leak Detector, always adhere to the following safety guidelines:

• When using the Leak Detector, ensure that the **pressure reference port**, located on the nose cone exterior, remains **uncovered** throughout testing. **Be careful not to cover the port with your finger when running the machine.** 





- Use the Leak Detector for the correct purpose. Do not use it for anything other than what it was designed to do.
- Always employ appropriate safety measures while using the Leak Detector: use safety
  glasses when the Leak Detector is in operation, do not operate the Leak Detector when
  tired, or while under the influence of drugs, alcohol or medication, and do not use the
  Leak Detector while on a ladder or on unstable support.
- Never use the Leak Detector in an explosive atmosphere. Normal sparking of the motor could ignite flammable liquid, gases, fumes or dust. Do not place the Leak Detector near fire or extreme heat.
- Use of an attachment not recommended by the distributor may result in a risk of fire, electric shock, or personal injury.

## **Optional Accessories**

There are a variety of other test chamber profiles that can be used to test specific details and require the hose attachment. Each end of the hose fits onto the adapters located on the profile and on the standard dome. To use the hose attachment profiles, place the Leak Detector on a flat surface, such that the standard dome chamber has a continuous seal to the surface. Place the hose attachment profile over the test area (once Test Solution has been applied to the detail). Run the test as normal, holding the hose attachment profile over the sample area. Contact your local distributor for a list of available profiles, or for information on custom profiles.





# Storage and Transportation

In order to keep the Air-Sure Leak Detector in optimal working condition, store the equipment when not in use, and use caution when transporting the equipment. Follow the guidelines below:

## Storage

If you are storing the equipment in the recommended Air-Sure Security Case, follow the packing instructions on the case to ensure a stable environment for the equipment when not in use. If you are not using the Air-Sure Security Case, store the Leak Detector with the test chamber on the unit. The Leak Detector and the Test Solution should be stored in a dry and secure area - out of reach of children.

## Hoisting

Follow local hoisting and rigging regulations when lifting equipment to the test destination. **DO NOT** lift the equipment by carrying it up an unstable incline, ladder or scaffolding.

## **Transportation by Air**

There are no components inside the Leak Detector which restrict transportation by air. The following is a list of particulars that will aid you in passage through customs:

Batteries are sealed lead acid gel.

Serial number is located on the side of the machine body.

Country of origin is located on the control panel.

The weight of the Leak Detector is approximately 15 pounds (6.8 kg).

## Maintenance

## Maintenance

Check damaged parts. Discontinue using the Leak Detector if any part of the unit appears damaged. Refrain from further use until the unit is properly repaired or replaced at an authorized service center. Never open or disassemble the Leak Detector.

Some parts of the Air-Sure Leak Detector may be serviced without bringing the unit to the distributor's service depot:

• Burned out light bulb in the nose cone: replace with a 6.3V 0.15A (size T-3¼) incandescent light bulb. Unscrew the lens cover counterclockwise to remove. Once the lens cover has been removed, unscrew light bulb counterclockwise. Replace bulb. Screw lens cover, clockwise, back onto the Leak Detector

For problems that are not listed above, contact your local distributor.

## Cleaning

Wipe the casing and chamber of the Leak Detector with a clean cloth. For best results, use a furniture polish on the casing. **NEVER** use gasoline, other petroleum-based products, or any solvent for cleaning the Leak detector.

# Retro-Specs Limited Warrantee for the United States and Canada

## What Does this Warrantee Cover?

Subject to the exclusions contained below, Retro-Specs Ltd. warrants its leak detection equipment to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. This limited warrantee is a consumer's exclusive remedy, and applies as follows to new Air-Sure Products and Accessories purchased by consumers in the United States or Canada, which are accompanied by this written warrantee:

#### **Products and Accessories**

Products Covered	Length of Coverage
<b>Products and Accessories</b> as defined above.	One (1) year from the date of purchase by the first consumer purchaser pf the product.

## **Exclusions**

**Normal Wear and Tear.** Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

**Batteries.** Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warrantee.

**Abuse & Misuse.** Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Retro-Specs, are excluded from coverage.

**Use of Non-Air-Sure Products and Accessories.** Defects or damages that result from the use of Non-Air-Sure branded or certified Products, Accessories, Electronics or other peripheral equipment are excluded from coverage.

**Unauthorized Service or Modification.** Defects or damages resulting from service, testing, adjusting, installation, maintenance, alteration, or modification in any way by someone other than Retro-Specs, or its authorized service centers, are excluded from coverage.

**Altered Products.** Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Air-Sure housings, or parts, are excluded from coverage.

## Who is Covered?

This warrantee extends only to the first consumer purchaser, and is not transferrable.

## What Will Retro-Specs do?

Retro-Specs, at its option, will at no charge repair, replace or refund the purchase price of any Products or Accessories that does not conform to this warrantee. We may use functionally equivalent reconditioned/refurbished/pre-owned or new Products or Accessories.

## How to Obtain Warrantee Service or Other Information?

Contact your local distributor. You will receive information on how to ship the Products or Accessories, at your expense, to an Air-Sure authorized repair center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; and (c) your address and telephone number.

## What Other Limitations Are There?

ANY IMPLIES WARRANTEES, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTEES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO THE DURATION OF THIS WARRANTEE, OTHERWISE THE REPAIR, REPLACEMENT, OR REFUND AS PROVIDED UNDER THIS EXPRESS LIMITED WARRANTEE IS THE EXCLUSIVE REMEDY OF THE CONSUMER, AND IS PROVIDED IN LIEU OF ALL OTHER WARRANTEES, EXPRESS OR IMPLIED. IN NO EVENT SHALL RETRO-SPECS BE LIABLE, WHETHER IN CONTRACT OR TORT (INCLUDING NEGLIGENCE) FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT OR ACCESSORY, OR FOR ANY INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR LOSS OF REVENUE OR PROFITS, LOSS OF BUSINESS, OR OTHER FINANCIAL LOSS ARISING OUT OF OR IN CONNECTION WITH THE ABILITY OR INABILITY TO USE THE PRODUCTS OR ACCESSORIES TO THE FULL EXTENT THESE DAMAGES MAY BE DISCLAIMED BY LAW.

## Air-Sure Leak Detector Specifications

#### 1. GENERAL

#### DESCRIPTION.

Primarily intended as a tool to locate leaks in single-ply and two-ply membrane systems, including but not limited to: air barriers, vapor barriers, roofing systems, waterproofing and ground liners.

Can be utilized during construction (prescriptive testing) and post-construction.

For commercial, industrial, institutional and residential applications.

#### **COMPOSITION AND MATERIALS.**

Air-Sure Leak Detector body is comprised of powder-coated steel. The test chamber is durable poly-carbonate, with a closed-cell, neoprene rubber seal.

Material Safety Data Sheets (MSDS) for the Air-Sure Test Solution are available from your local distributor upon request.

#### DIMENSIONS.

Leak Detector body: 20.0 in. x 6.5 in. x 6.5 in.

28.0 in. x 17.0 in. x 17.0 in. (with Standard Dome Profile attached)

14.0 pounds (6.4 kg)

#### POWER SUPPLY.

One (1) 12V sealed lead acid gel battery (rechargeable).

#### ACCESSORIES.

Air-Sure Leak Detector comes complete with Standard Dome Profile, 4L Air-Sure Test Solution (with four (4) 250 mL dauber bottles), Battery Charger, and Operator's Manual.

#### 2. TECHNICAL DATA

#### APPLICABLE STANDARDS.

Test method is in keeping with ASTM E 1186-98 "Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Retarder Systems" method 4.2.7 Chamber Depressurization in Conjunction with Leak Detection Liquid).

#### MATERIAL CONSIDERATIONS.

Testing using the Air-Sure Leak Detector (in conjunction with Air-Sure Test Solution) will not damage the membrane system when the equipment is used as intended.

Air-Sure Test Solution should not be applied to plastic resin building wraps.

#### 3. USE

#### PREPARATORY WORK.

The sample area selected should be wiped clean of dirt, grit, dust or debris. Test area should not be hot (from torching), frosted, extremely wet, and should be free of ice. Testing can be performed on seams, joints, and penetrations in the membrane.

#### METHOD.

Air-Sure Test Solution is applied liberally to the area being tested. The test chamber is placed over the sample area, and the Leak Detector activated. Contact between the Test Solution and test chamber should be avoided. Bubbles in the Test Solution indicate the presence of a possible leak.

#### 4. AVAILABILITY AND COST

#### AVAILABILITY.

Air-Sure Leak Detector is available worldwide, usually shipped from stock. Contact Retro-Specs Ltd. for a list of distributors.

#### COST.

Current price list available from local distributor.

#### 5. WARRANTEE

The information contained herein is the best available relating to the Air-Sure Leak Detector, and the recommendations contained herein are based upon information believed to be reliable. Limited warrantee covers all parts and labor costs resulting from defects in materials or workmanship for a period of one (1) year.

#### 6. MAINTENANCE

#### CLEANING.

Test chamber and machine casing should be wiped clean with a damp cloth. Furniture polish may be used on the machine casing. Do not use gasoline, petroleum-based products or solvents on the Air-Sure Leak Detector.

#### CHARGING.

Air-Sure Leak Detector is designed to perform approximately 100 tests before recharging if the battery is required. A full recharge can be achieved in approximately three (3) hours. Although the built-in circuitry will prevent overcharging, it is recommended that the charger be disconnected after this time.

#### LIGHT BULB.

Nose cone light bulb is a 6.3V 0.15 (size T-31/4) incandescent light bulb.

#### 7. TECHNICAL SERVICES

Technical support is available from Retro-Specs Ltd. Call 204.322.5081.

Specification assistance.

Site advice and recommendations.

#### 8. RELATED REFERENCES

ASTM E 1186-02

PWGSC National Master Specification Section 07271 Air Barriers (Descriptive/Proprietary) Section 07272 Air Barriers (Performance)

Canada Mortgage and Housing Corporation <u>Guidelines for Delivering Effective Air Barrier Systems</u>
ASTM STP 1422 A New Protocol for the Inspection and Testing of Building Envelope Air Barrier Systems