Blue-Point®

ACT725 Leak D'Tector
ACT750 Leak N'Spector

Owner's Manual

WARNING!

- Pressurized systems can leak.

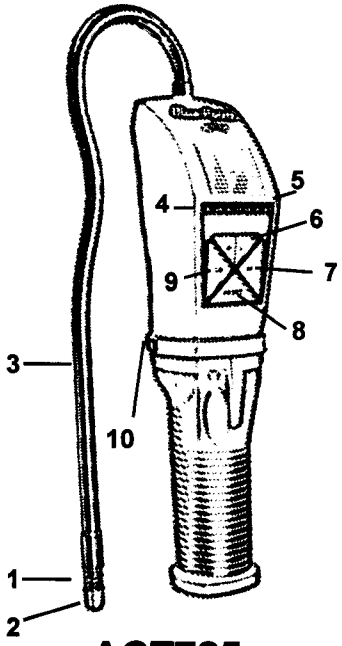
Wear Safety shield (user and bystanders).
Use in well ventilated areas.
Do not breathe refrigerant vapors.
Read and following instructions.
Pressurized leaks and breathing vapors may cause injury.

- Moving engine components.

Wear safety goggles (user and bystander).
Keep self and tools clear of moving parts.
Moving components can cause injury.

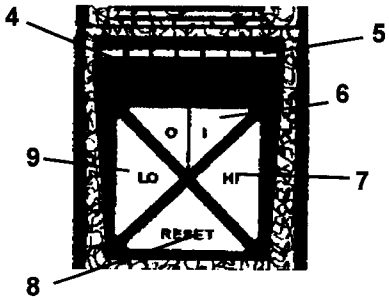
For additional help or troubleshooting call our tech hotline toll free at 1-800-464-1922

PARTS & CONTROLS- ACT725



ACT725

ACT725 Keypad



1. Sensing Tip
2. Tip Protector
3. Flexible Probe
4. Constant Power Indicator
5. LED Leak Indicators
6. Power On/Off Key
7. High Sensitivity Key
8. Reset Key
9. Low Sensitivity Key
10. Probe Clip (on back of unit)

GETTING STARTED

Installing Batteries

1. Remove the battery compartment door located on the bottom of the unit by inserting a coin and rotating counter-clockwise 1/4 turn, as shown below. Install batteries, Positive Polarity towards the inside of the unit (See Figure 2).

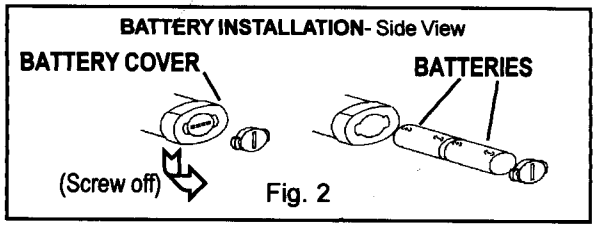


Fig. 2

OPERATING FEATURES

Constant Power Indication
The Constant Power indicator allows the user to see the battery level at all times. The first LED (leftmost) in the bargraph will remain on whenever the unit is powered on. NOTE: If the LED 'pulses' with each audible tone or is not lit, this is an indication that the batteries should be replaced (battery life is approximately 30 hours).

OPERATING FEATURES

Automatic Circuit/Reset Feature
The ACT725 features an Automatic circuit that sets the unit to ignore ambient concentrations of refrigerant. The ACT725 additionally features a Reset function key for convenience.

- Automatic Circuit - Upon initial power on, the unit automatically sets itself to ignore the level of refrigerant present at the tip. Only a level, or concentration, greater than this will cause an alarm. CAUTION: Be aware that this feature will cause the unit to ignore any refrigerant present at turn on. In other words, with the unit off, if you place the tip up to a known leak and switch the unit on, no leak will be indicated!

- Reset Feature - Resetting the unit during operation performs a similar function; it programs the circuit to ignore the level of refrigerant present at the tip. This allows the user to 'home-in' on the source of the leak (higher concentration). Similarly, the unit can be moved to fresh air and reset for maximum sensitivity. Resetting the unit with no refrigerant present (fresh air) causes any level above zero to be detected. Whenever the unit is reset, all LED's will light for 1 second. This provides a visual confirmation of the reset action.

To Reset the unit: Press the RESET key

Sensitivity Adjustment
The ACT725 provides two levels of sensitivity. The base beeping tone is an indication of sensitivity level; the quicker beep rate indicates the higher level. When the unit is switched on, it is set to the high sensitivity position.

1. To change the sensitivity, press the LOW key. When the key is pressed, the visual display will momentarily show the four left LED's red. The base beep rate will slow, indicating Low Sensitivity level.
2. To switch back to High Sensitivity, press the HIGH key. The three right LED's will light momentarily, and the base beep rate quickens.

OPERATION

1. Switch the unit on. Press the "I/O" (Red and Green) key. All LED's will light for two seconds as the unit performs a self check.
2. The unit will begin beeping at a steady rate.
3. Verify the battery level by observing the constant power indicator (see above).
4. Begin searching for leaks. When refrigerant is detected, the audible tone will change to a 'siren' type sound, distinctly different from the base beep rate. Additionally, the visual indicators will light progressively from left to right indicating relative leak size.
5. Sensitivity can be adjusted at any time during operation by using the HIGH or LOW keys.
6. If a full alarm occurs before the leak is pinpointed, press the RESET key to reset the circuit to a zero reference as described above.

Refer to Page 6 (ACT 750 section) for operating tips and SAE J1628 procedure

MAINTENANCE ACT725 & ACT750

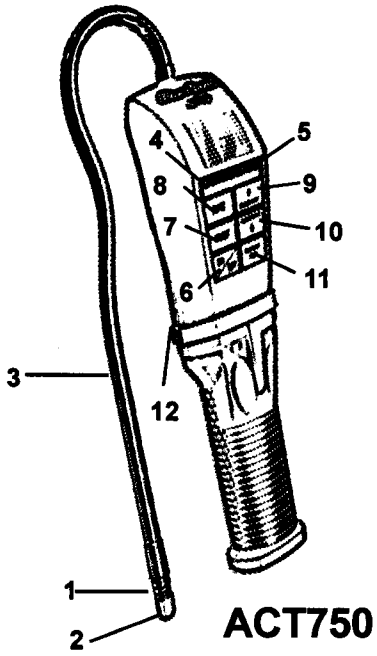
Proper maintenance of your Leak Detector is very important. Carefully following the instructions, outlined below, will reduce performance problems and increase the life expectancy of the unit.
WARNING: TURN UNIT OFF BEFORE REPLACING THE SENSING TIP. FAILURE TO DO SO MAY RESULT IN A MILD ELECTRICAL SHOCK!
Keep the sensing tip clean: Prevent dust, moisture and grease build-up by utilizing the provided tip protector. Never use the unit without the protector in place.
Before using the unit always inspect the tip and protector to see that they are free of dirt and/or grease. To clean:
1. Remove protector by grasping and pulling off tip.
2. Clean protector with shop towel and/or compressed air.
3. If the tip itself is dirty, unscrew and remove.
4. Clean the tip by immersing in a mild solvent, such as alcohol, for a few seconds, and then using compressed air and/or a shop towel to clean.

NOTE: Never use solvents such as gasoline, turpentine, mineral spirits, etc... as these will leave a detectable residue and desensitize your unit.

Sensing tip replacement: The tip will eventually wear out and require replacement. This will occur sometime after about **20 hours** of use, however tip longevity is directly related to the conditions and frequency of use. The tip should be replaced whenever the alarm sounds or becomes erratic, in a clean, pure, air environment.

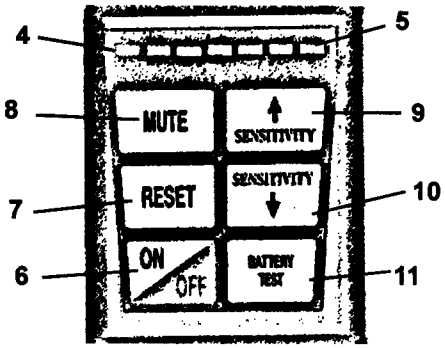
For additional help or troubleshooting call our tech hotline toll free at 1-800-464-1922

PARTS & CONTROLS- ACT750



ACT750

ACT750 Keypad



1. Sensing Tip
2. Tip Protector
3. Flexible Probe
4. Constant Power Indicator
5. LED Leak Indicators
6. Power On/Off Key
7. Reset Key
8. Audio Mute Key
9. Sensitivity Up Key
10. Sensitivity Down Key
11. Battery Test Key
12. Probe Clip (On back of Unit)

GETTING STARTED

Installing Batteries

1. Remove the battery compartment door located on the bottom of the unit by inserting a coin and rotating counter-clockwise 1/4 turn, as shown below. Install batteries, Positive Polarity towards the inside of the unit (See Figure 2).

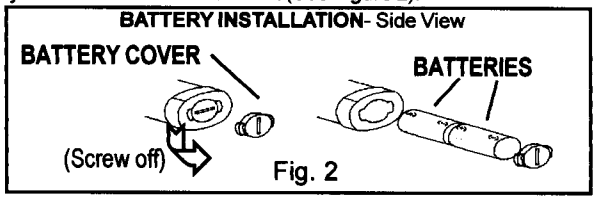


Fig. 2

OPERATING FEATURES

The ACT750 provides two indications of battery voltage status; a Constant Power indicator (left most LED) and a Battery Test function.

- The Constant Power indicator allows the user to see the battery level at all times. The LED will remain on whenever the unit is powered on. It may appear as one of three colors (See Fig 3):
  GREEN - battery voltage is normal, sufficient for proper operation.
  ORANGE - battery voltage is approaching the lower threshold for operation, replace as soon as possible.
  RED - battery voltage is below acceptable operating level (this will occur after approx. 30 hours). Replace the batteries before using the unit.

OPERATING FEATURES

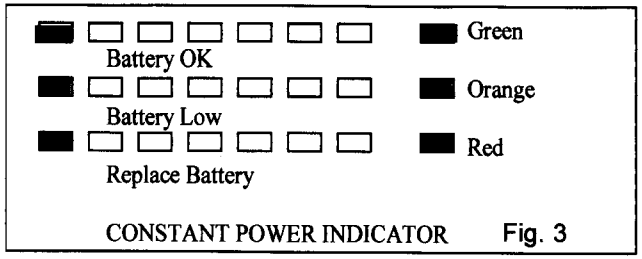


Fig. 3

- Battery Test Function. This feature is activated by pressing the Battery Test key. When pressed, the LED's will display a three color bargraph indication of true battery voltage (See Fig. 4). The LED's correspond to voltage as shown in the figure. The battery voltage display will remain as long as the Battery Test key is depressed. Release the Battery Test key to return to normal operation. This function may be activated at any time during operation, and does not interrupt alarm signals.

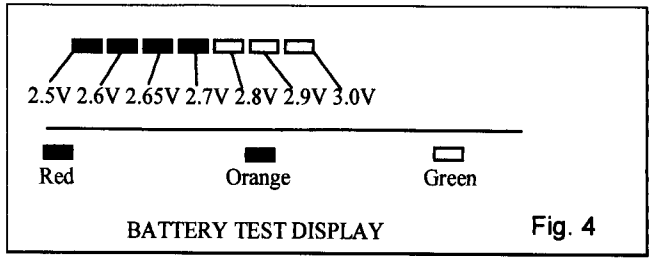


Fig. 4

Automatic Circuit/Reset Feature

The ACT750 features an Automatic circuit and Reset function key that set the unit to ignore ambient concentrations of refrigerant.

- Automatic Circuit - Upon initial power on, the unit automatically sets itself to ignore the level of refrigerant present at the tip. Only a level, or concentration, greater than this will cause an alarm. CAUTION: Be aware that this feature will cause the unit to ignore any refrigerant present at turn on. In other words, with the unit off, if you place the tip up to a known leak and switch the unit on, no leak will be indicated!
- Reset Feature - Pressing the RESET key during operation performs a similar function. When the Reset key is pressed it programs the circuit to ignore the level of refrigerant present at the tip. This allows the user to 'home-in' on the source of the leak (higher concentration). Similarly, the unit can be moved to fresh air and reset for maximum sensitivity. Resetting the unit with no refrigerant present (fresh air) causes any level above zero to be detected.
- Whenever the unit is reset, the LED's (except the leftmost power indicator) will turn Orange for 1 second. This provides a visual confirmation of the reset action.

Sensitivity Adjustment

The ACT750 provides seven levels of sensitivity. The sensitivity level is indicated on the visual display when either the SENSITIVITY ⇑ OR SENSITIVITY ⇓ keys are pressed. The base beeping tone is also an indication of sensitivity level; the quicker the beep rate, the higher the level. When the unit is switched on, it is set to sensitivity level 5.

1. To adjust the sensitivity, press the SENSITIVITY ⇓ key. When the key is pressed, the visual display will show all LED's red. The number of LED's lit, indicates the level (See Fig 5). Level one (lowest sensitivity) is shown by the leftmost LED. Counting from left, levels 2 through 7 are indicated by the corresponding number of red LED's; i.e. level 7 is shown by all LED's lit.

OPERATING FEATURES

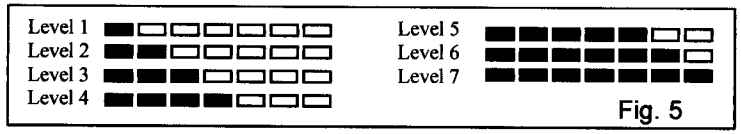


Fig. 5

1. If the unit has been adjusted to a lower level since turn on, pressing the SENSITIVITY ⇧ key will increase sensitivity. The keys can be pressed intermittently to change levels one at a time, or held down to move quickly through the levels.
2. Each time the level is increased (or decreased) the relative sensitivity is doubled (or halved). In other words, level 2 is twice as sensitive as level 1, level 3 4 times as sensitive, etc... This allows sensitivity to be increased as much as 64 times!

NOTE: In level 7, the unit is at extremely high sensitivity and it is possible that some instability may occur, and false signals could result.

Alarm Indications

The ACT750 features 18 alarm levels. This permits a clear indication of relative leak size and strength. The progressive indicators can be used to home-in on a leak; as the increasing alarm levels indicate that the source (highest concentration) is being approached.

Each level is indicated by additional LED's in one of three colors, Green, Orange or Red (See Fig 6).

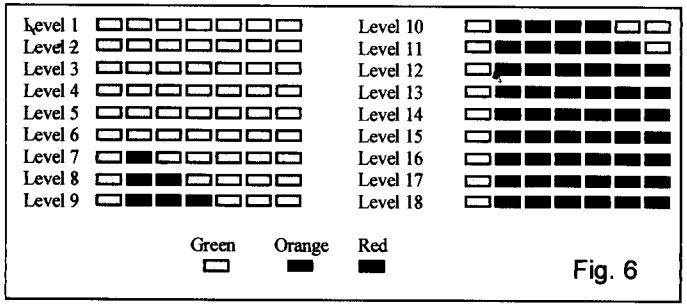


Fig. 6

At first the display will light Green, from left to right. Then, the LED's will light Orange, from left to right, replacing the Green one at a time. Finally, the Orange LED's will light Red, from left to right, replacing the Orange, one at a time.

OPERATION

1. Switch the unit on by pressing the ON/OFF key. The display will illuminate with the reset indication (Left LED green, all others Orange) for 2 seconds.
2. Verify the battery level by observing the constant power indicator (see above).
3. Upon turn on, the unit is set to sensitivity level 5. A rapid, but steady beep rate will be heard. If desired, the sensitivity can be reduced by pressing the SENSITIVITY ⇩ key, as described above.
4. Begin searching for leaks. When refrigerant is detected, the audible tone will change to a 'siren' type sound, distinctly different from the base beep rate. Additionally, the visual indicators will light progressively as described in the Alarm Indications section.
5. Sensitivity can be adjusted at any time during operation by using the SENSITIVITY ⇧ or SENSITIVITY ⇩ key.
6. If a full alarm occurs before the leak is pinpointed, press the RESET key to reset the circuit to a zero reference as described above.

OPERATING TIPS

The following section includes several general operating tips, and the SAE J1628 recommended procedure for leak detection.

1. In areas that are heavily contaminated with gas, the unit may be reset to block out ambient concentrations of gas. The probe should not be moved while the unit is being reset. The unit can be reset as many times as needed.
2. Be aware that the detector may alarm if the sensing tip comes in contact with moisture and/or solvents. Therefore, avoid contact with these when leak checking.

SAE J1628 Recommended Procedure

NOTE: On Automotive A/C Systems, test with the engine not in operation.

1. The air conditioning or refrigeration system should be charged with sufficient refrigerant to have a gauge pressure of at least 340 kPa (50 psi) when not in operation. At temperatures below 15° C (59° F), leaks may not be measurable, since this pressure may not be reached.
2. Take care not to contaminate the detector probe tip if the part being tested is contaminated. If the part is particularly dirty, or condensate (moisture) is present it should be wiped off with a dry shop towel or blown off with shop air. No cleaners or solvents should be used, since the detector may be sensitive to their ingredients.
3. Visually trace the entire refrigerant system, and look for signs of air conditioning lubricant leakage, damage, and corrosion on all lines, hoses, and components. Each questionable area should be carefully checked with the detector probe, as well as all fittings, hose to line couplings, refrigerant controls, service ports with caps in place, brazed or welded areas, and areas around attachment points and hold-downs on lines and components.
4. Always follow the refrigerant system around in a continuous path so that no areas of potential leaks are missed. If a leak is found, always continue to test the remainder of the system.
5. At each area checked, the probe should be moved around the location, at a rate no more than 25 to 50 mm/second (1-2 in/second),and no more than 5 mm (1/4 in) from the surface, completely around the position. Slower and closer movement of the probe greatly improves the likelihood of finding a leak (see Fig. 3, below). Any increase in beep rate is indicative of a leak.
6. An apparent leak shall be verified at least once as follows:
   a) Blow shop air into the area of the suspected leak, if necessary, and repeat the check of the area. In cases of very large leaks, blowing out the area with shop air often helps locate the exact position of the leak.
   b) First move the probe to fresh air and reset. Then hold the probe tip as close as possible to the indicated leak source and slowly move around it until the leak is confirmed.

Automotive A/C Systems only -

7. Leak testing of the evaporator core while in the air conditioning module shall be accomplished by turning the air conditioning blower on high for a period of 15 seconds minimum, shutting it off, then waiting for the refrigerant to accumulate in the case for 10 minutes.

   After such time, insert the leak detector probe into the blower resistor block or condensate drain hole, if no water is present, or into the closest opening in the heating/ventilation/air conditioning case to the evaporator, such as the heater duct or a vent duct. If the detector alarms, a leak apparently has been found.

All Systems -

8. Following any service to the refrigerant system and any other service which disturbs the refrigerant system, a leak test of the repair and of the service ports of the refrigerant system should be done.

WARRANTY- ACT725 & ACT750

This instrument has been designed and manufactured to provide unlimited service. Should the unit be inoperative, after performing the recommended maintenance, a no-charge repair or replacement will be made to the original purchaser if the claim is made within **THREE** years from the date of purchase. This warranty applies to all repairable instruments that have not been tampered with or damaged through improper use. This warranty does not cover batteries, sensing tips, tip protectors, or any other materials that wear out during normal operation of the instrument.

Before returning your instrument for repair please make sure that you have carefully reviewed the **Unit Maintenance** section of this manual to determine if the problem can be easily repaired. Make sure that you have either replaced or cleaned the **sensing tip and tip protector** and that the **batteries** are working properly **BEFORE returning the unit.** If the instrument still fails to work properly, please return to your Snap-On Dealer.