**Heated Diode Refrigerant Leak Detector**

**Model: SRL8**

**Description**

The SRL8 uses a tin dioxide semiconducting gas detector (heated diode) and microprocessor to create a highly sensitive portable refrigerant leak detector technology with superior battery life, portability, and ease of use.

Gas is pumped through the tip of the wand into the sensor at the base of the snoot. The sensor chemically reacts with any refrigerant in the incoming gas, sending a mV signal into a microprocessor controlled circuit.

The SRL8 can detect leaks smaller than 0.1 oz/year, which exceeds the toughest SAE J1627 standards. The SRL8 comes with wall and car charger for its ultra-compact Li-ion battery which powers the SRL8 for 15 hours of continuous operation before a recharge is needed. That's long enough to last your entire workday.

The SRL8 has variable sensitivity settings, to give you the sensitivity you need while eliminating “nuisance tripping”. A quick, automatic 30 second self-calibration upon power-up ensures optimal performance.

A built in replaceable filter blocks moisture and harmful particulates. The SRL8 also has manual and automatic “Zeroing” function to ensure the best sensitivity possible by canceling out background contamination. Use the MUTE button to silence the detector's audio indicators when needed.

**Operation**

**ON/OFF Protection**

To turn on/off the SRL8 press and hold the ON/OFF button for one second. This slight delay protects against inadvertent powering on or off, conserving battery life. If you forget to turn the SRL8 off, it will automatically turn off after 10 minutes of inactivity.

**LED Bar Graph Display**

The eight segment LED display indicates the concentration of refrigerant detected. As the concentration of refrigerant in the air increases so does the number of lit bars on the display.

L/M/H Button (Sensitivity)

- Set the sensitivity level by pressing the L/M/H button.
- L: Low sensitivity, M: Medium sensitivity, H: High sensitivity

**Zeroing Function**

- Pressing the ZERO button toggles the sound of the SRL8 on and off. In addition, holding the MUTE button down for one second will display the remaining percent of battery charge on the LED bar graph.

**Operating Modes**

- **Auto-Zero**: Auto-zeroing function.

**Quick Tips**

1. To pinpoint larger leaks, adjust sensitivity.
2. Make sure the SRL8 is zeroing between detections. Look for the double flash of the auto-zero LED.

**Comparing Leak Detectors**

Fieldpiece has two leak detectors. The SRL8 uses a heated diode sensor. The heated diode’s advantage is that it detects absolute concentration levels so it can be held on a leak and will continue to beep. It is also initially very sensitive. Its major disadvantages are that the sensor becomes less sensitive over time, eventually needing replacement and it is more sensitive to some refrigerants than others.

The SRL2 uses an infrared (IR) sensor. It detects a CHANGE in concentration, so the wand must keep moving. The main advantages of the Fieldpiece IR sensor are that its sensitivity will remain the same over the life of the instrument, the sensor will last the lifetime of the instrument, it will not trigger on humidity or oil, and it has nearly the same sensitivity to most refrigerants. The main disadvantage of infrared sensors is their sensitivity to mechanical disturbances.
Lithium Battery Care
The SRL8 contains a very powerful lithium ion battery. For a long battery life and safe operation, you must observe the following:

Cautions
1. Do not expose the battery to temperatures higher than 140°F (60°C).
2. Do not charge the battery in or near heated places such as fire, hot vehicles, or direct sunlight.
3. Do not solder directly on battery.
4. Do not expose the battery to direct impact or throw it.
5. Do not get the battery wet.
6. Do not deform or pierce the battery in any way.
7. If there is any battery leakage, do not touch the battery. In the case that electrolyte gets into the eyes, flush with fresh water, do not rub, and see a physician immediately.
8. Send in for replacement immediately if there is any deformity, bad smell, color change, or other abnormality.
9. The battery is user-replaceable and can be purchased at most electronic stores. The following batteries are compatible with the SRL8: Fuji Film: NP-120, PENTAX: DL1-7, RICON: DB-43

Specifications
- Sensing element: Heated Diode
- Sensor life: 5 years (typical)
- Refrigerants: HFC, CFC, HCFC, and blends
- Sensitivity: Min (Stationary): 0.03 oz/yr (1g/yr)
  Max (Stationary): +6 oz/yr (+180g/yr)
  Min (In motion): +0.1 oz/yr (3g/yr)
  Max (In motion): +6 oz/yr (+180g/yr)
  After exposure to (50g/yr): +0.1 oz/yr (3g/yr)
- Response time: 0.5 to 1 second
- Recovery time: ~9 seconds
- Auto off: 10 minutes after no activity
- Battery: 3.7VDC(nominal), 1800mAh rechargeable lithium ion (model NP-120) replaceable battery.
- Battery life: 15 hours continuous use prior to needing a charge. Degradation (30%) after 500 charge/discharge cycles or two years, whichever comes first
- Low battery LED: Illuminated when approximately 1 hour of battery life remains
- Charge time: approximately 4 hours @ 450mA
- Operating environment: 32°F (0°C) to 104°F (40°C) at <75%RH (non-condensing)
- Storage environment: <80%RH meter and batt.
- Weight: 15.2 oz (0.43kg)

Charging
Two chargers are included with the SRL8. The AC charger plugs into a wall outlet, and the car charger plugs into a car cigarette lighter DC plug.
1. The battery is partially charged when packaged. Fully charge the battery before first use.
2. The LOW-BATT LED will light red when the battery is low. Charge can be checked at any time the unit is on with the Battery Check function (See Operation section).
3. To recharge the SRL8, plug one end of the charger into the top of the SRL8 and the other into the power source. LOW-BATT will blink while charging until the battery is fully charged. When the SRL8 battery is fully charged, LOW-BATT turns off.
4. Charge within operating environment specified in the Specifications section of this manual.
5. Avoid frequent full discharges. Several partial discharges with frequent discharges are better for lithium-ion batteries. Unlike nickel-based batteries they have no charge memory and do not need to be discharged before charging.

Storage
The battery should have a 40%-50% charge during prolonged storage of a month or longer. See Specifications section of this manual for proper storage environment.

Battery life is dramatically reduced if the battery is stored fully charged and/or at high temperatures.

Notice of Compliance
This instrument complies with the specifications for an indicating, locating leak detector as described by the European standard EN 14624, approved by CEN on February 21st 2005.

More Products From Fieldpiece
- See all Models from Fieldpiece

Included Equipment
- Use model RRE2 when detecting in tight spaces, such as through a condenser grille. Model RFE2 extends the wand to 25.5”. The blow molded case, model holds accessories and chargers.
- All accessories shown are included with the SRL8.

Modular Expandability
- Modular expandability is ability for accessory heads and meters to change configurations to match the various needs of an HVAC/R technician.
- Accessory heads (the sensors) send out a mV signal, which represents the value of the measurement, to whatever meter is attached to it. Heads can attach directly to the top of a Stick meter, DL3 data logger, or EHDL1. They can also plug into any meter with mV ranges using ADLS2 leads.

Warranty and Service
The product is warranted to the original purchaser against defects in material or workmanship for a period of one (1) year from the date of purchase. During the warranty period, Fieldpiece Instruments will, at its option, replace or repair the defective unit.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the instrument. Any implied warranty arising out of the sale of Fieldpiece’s products including but not limited to implied warranties of merchantability and fitness for purpose are limited to the above. Fieldpiece shall not be liable for incidental or consequential damages.

Contact Fieldpiece for an RMA# if returning any defective SRL8 for warranty service. Include the defective instrument along with proof of purchase. Contact Fieldpiece for out of warranty repair charges.

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