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PRODUCT INSTRUCTIONS

- XL-2 Fluid Leak Detector -

1. THE MODEL XL-2 LEAK DETECTOR

The Detectron Model XL-2 Leak Detector is a portable, highly effective instrument intended primarily for the detection of leaks in pressurized fluid systems. The Model XL-2 Leak Detector consists of a specially constructed highly sensitive magnetic pickup and a high gain transistorized amplifier with an adjustable filter.

2. UNPACKING

Note the placement of the various components as received and repack in the same manner when not in use. If damage has occurred in shipment, file a claim with the carrier immediately. If it is necessary to contact your supplier or the manufacturer concerning damaged or missing items, be sure to include all the information such as serial number, purchase order number and invoice number. This will ensure you of obtaining proper and expeditious service.

3. OPERATING PROCEDURE

Connect the pickup to the receptacle on the XL-2 marked "Pickup" and plug the headphones into the jack marked "Phones". Note: The XL-2 Leak Detector is automatically turned "on" and "off" by plugging in and unplugging the headphones; therefore, they should be unplugged when the instrument is not in use.

Press the "Battery Test" button and observe the meter indication. If the pointer falls to the right of the "REPLACE BATTERY" region, the battery is in serviceable condition. If the pointer falls within the "REPLACE BATTERY" region, the battery is unserviceable and must be replaced.

Turn the "FILTER" switch to the "WIDE BAND" position, place the pickup on the surface to be investigated and put on the headphones. Adjust the "COARSE" and "FINE SENSITIVITY" controls until the meter indicates somewhere in the upper two-thirds of its scale and note the sounds heard in the headphones. If a leak is heard, the filter switch may be rotated to a position which accentuates the leak and reduces background noise.

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When moving the pickup or during periods of excessively high background noise, it is possible to mute the detector without disturbing the sensitivity controls by pulling out the "FINE" sensitivity control.

When listening for sounds on an exposed pipe, screw the pointed probe into the bottom of the pickup and hold the point firmly against the pipe. Underground leaks can often be detected more easily by pushing the pointed probe into the ground. When listening for leaks on flat surfaces, the probe is removed and the pickup is placed on the surface with the three spikes supporting it.

It is possible to familiarize oneself with the sound of a water leak by listening on a water line and turning on a fusecoat so that a small amount of water is discharging from it. By alternately turning the water "on" and "off" the characteristic high-pitched hissing sound can be heard and distinguished from other sounds on the line.

4. LEAK DETECTION METHODS

The general locality of the water leak may be indicated by a metered loss, damp spots, or surface water. Since water from an underground leak usually travels a considerable distance before appearing at the surface its presence usually only indicates the general area of a leak.

To narrow down the search for the leak, take readings with the leak detector on all exposed portions of the system (fireplugs, meter boxes, valves) in the suspected area. When taking comparative readings with a leak detector, all readings must be made to the same reference level if accurate results are to be obtained. After the first reading is taken and the sensitivity controls have been initially set, subsequent readings should be taken without re-adjusting the sensitivity settings, so that the deflection of the meter will give a true indication of relative sound intensities.

Another method of taking comparative readings is to adjust the "FINE SENSITIVITY" control until some particular meter reading (say one-half scale) is obtained. Record the position of the sensitivity control required at each location to give the same meter indication. If more sensitivity is required at a subsequent location, the leak sound is weaker, and if less sensitivity is required, the leak sound is greater.

After determining the specific area of the leak from readings taken on exposed portions of the system, the next step is to pinpoint the leak. First, mark the course of the pipeline including all laterals and services using a Detection Model 505 "Go-Fer" Pipe & Cable Locator. Take readings every few feet along the course of the suspected pipeline by placing the pickup on

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the surface directly over the pipe and record the sound intensity. Correlation of these readings will indicate the exact location of the leak.

5. OPERATING SUGGESTIONS

1. Protect the pickup and its cable from wind. Wind noise is likely to mask the sound of a leak.

2. Use systematic approach to leak locating. Always know the exact location of the suspected pipeline.

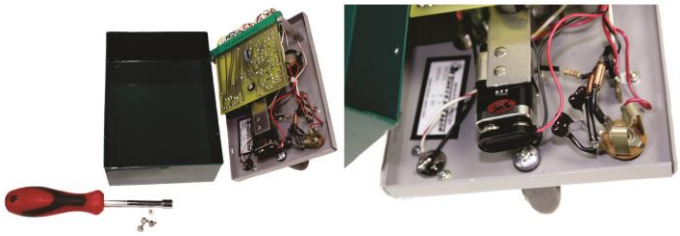
3. Become familiar with the sound produced by a water leak by experimenting with known leaks.

4. Whenever possible, use the same personnel for leak detection work. Experience is a great aid to efficient leak locating.

5. When the leak sound has been located on the main, be sure to check for unknown laterals which may have leaks.

6. SERVICING

To replace battery, remove the two screws located on the ends of the panel and remove the case. The battery is held in place by a Velcro fastener. The Velcro will peel apart where the two straps overlap on top of the battery. Replace the battery with a Mallory #M-1602, Eveready #246, or RCA #VS305. See photos below.



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If the detector fails to operate properly, be sure all controls are set to the proper positions. Make sure the "fine" sensitivity control is not pulled out to the "mute" position. Remove the circuit board by removing the #6-32 screw that goes through to the phenolic standoff and unplug the board. Clean the contact fingers on the circuit board and the socket with contact cleaner.

7. SHIPPING INSTRUCTIONS

All instruments being returned for repair should be sent PREPAID to either address below:

Via courier (UPS, FedEx, DHL, etc)
Tinker & Rasor
Attn: Repairs
791 S. Waterman Ave.
San Bernardino, CA. 92408

Include with shipment information the nature of the problem, purchase order, serial number and return delivery address and phone and fax numbers. Immediate service is guaranteed!
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