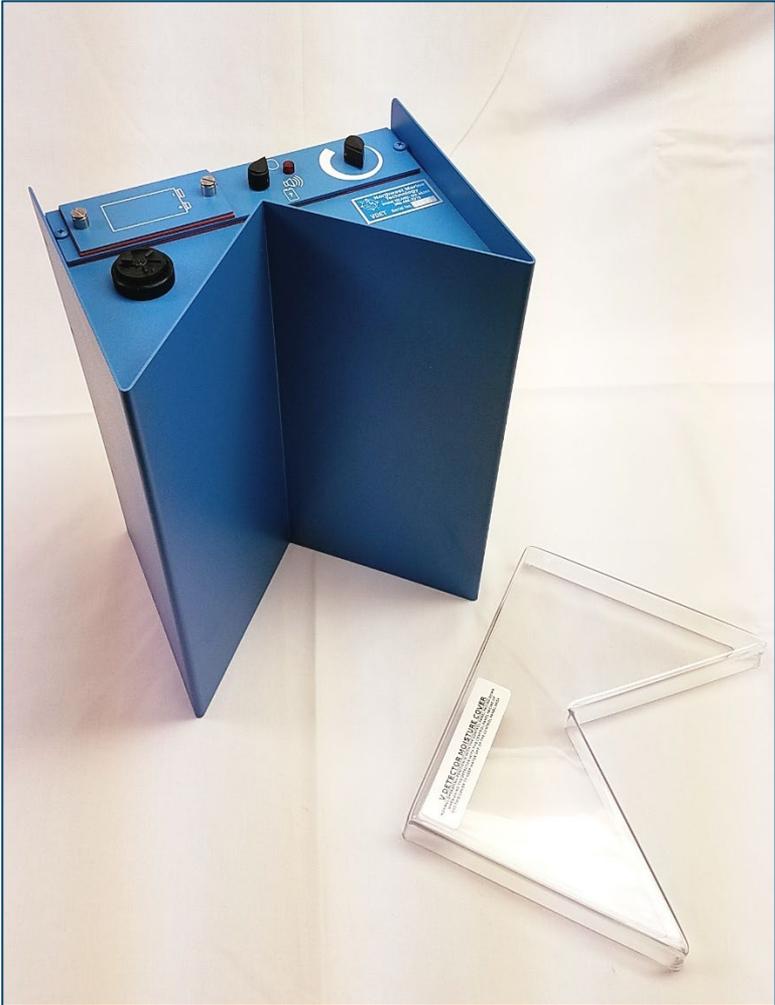


Northwest Marine Technology, Inc.

V-Detector User's Manual



Northwest Marine Technology Inc.

4003 Airport Road, Anacortes, WA, 98221, USA

Phone: +1-360-764-8850

Email: office@nmt.us; www.nmt.us

Specifications

Dimensions (ready to use):

15 x 9 x 7 inches (37 x 23 x 18 cm)

8 lb (3.6 kg)

Shipping dimensions:

18 x 12 x 10 inches (46 x 31 x 25 cm)

11 lb (5 kg)

Shipping dimensions in optional transit case:

17 x 12x 10 inches (43 x 30 x 25 cm)

20 lb (9 kg)

Power requirement: 9V alkaline battery (disposable).

The V-Detector carries Northwest Marine Technology's standard one-year warranty.

Introduction

The V-Detector is used for hands-free detection of Coded Wire Tags. It is light, rugged and while it is not waterproof, it is adequately protected to tolerate the usual wet environment.

The V-Detector detects changes in the magnetic field that occur when a tag is moved past the sensors inside the V. The most sensitive areas are circled in orange.

The sides and back are shielded to reduce interference from other sources of magnetism. You can further reduce false positive signals by selecting where you set up the V-Detector:



1. The V-Detector is sensitive to movement and will beep if jostled or bumped. To avoid this, position it on a firm surface. The V-Detector can be mounted on a post or wall using the two $\frac{1}{4}$ " x 20 threaded sockets on the rear panel. Do not force long mounting screws into the rear panel mounting sockets. The sockets are closed to prevent water entry.
2. Avoid use near sources of magnetic interference such as motors or generators.
3. Remove watches, jewelry, and other metallic items while operating the V-Detector.

Operation

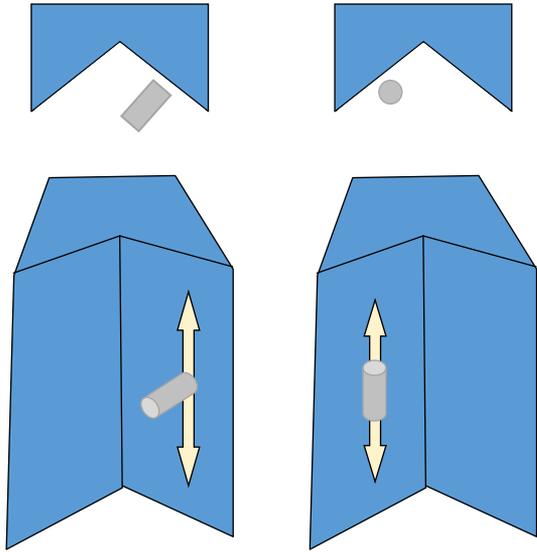
1. Set the V-Detector on a stable surface with the knobs facing up.



2. Turn the selector knob to the battery check position. If the detector beeps and the light comes on, the battery is satisfactory. If not, install a fresh battery.
3. Turn the knob to the red light if you want only the light to come on when a tag is detected. Turn it to the alarm icon if you want the red light and alarm to indicate a tag detection. This is the recommended setting.
4. Use the detection standard to adjust the sensitivity. Briskly wave the standard up and down within the V. Do not touch the detector as this will create a false positive detection. If the tag is clearly detected, no further adjustment is needed. If the tag is not detected or you aren't sure if a tag was detected, increase the sensitivity until the tags is clearly detected.
5. Once the detector is set up, put the clear cap over the top to prevent water intrusion, or turn the detector upside down while sampling.
6. Use the same brisk up and down motion with each specimen you are testing. Make sure the tagged body part is well inside the V and that you move the specimen from the top to the bottom of the V.

Tag Orientation

Tag detection depends on the orientation of the tag with respect to the detector faces. The correct tag orientation is shown here. The tag position applies equally to either face of the V-Detector. The specimen must always be moved vertically within the V.



Proper tag orientation is critical when sampling for half-length tags. If you are having difficulty detecting tags, reorient your specimen inside the V, and if that doesn't improve detection, increase the sensitivity.

Troubleshooting

If the V-Detector performs erratically:

1. Replace the battery.
2. Check for sources of outside magnetic interference.
3. Check for water inside the case. If water is inside the case, follow the drying instructions for "Accidental Immersion" below.

Accidental Immersion

The V-Detector is not designed to be immersed. However, if properly cared for at the time of immersion, you may be able to avoid or minimize the damage by following these steps:

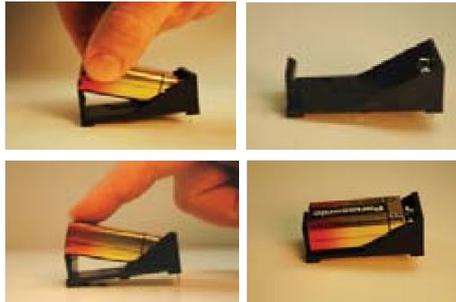
1. Turn off the power.
2. Remove the screws at each end of the control panel. Gently pull the control panel away from the case (there is a cable that prevents complete removal) and drain the water out of the case. If the immersion was in salt water, gently rinse the detector inside and out with fresh water.
3. Let the unit dry completely before reinstalling the control panel.

Maintenance

Clean the detector with mild detergent and a damp cloth. Remove excess water and dry the unit before storing.

To replace the battery:

1. Gently pry the spent battery out of the holder from the end without the contacts.
2. Line up the new battery contacts to slide onto holder contacts.
3. Push the battery down until it snaps into place.



Most rechargeable 9-volt batteries are 7.2 volts and will not work well in the V-Detector.

Remove the battery for long term storage.