

TORRENT™ RAIN GAUGE



Getting Started

The **TORRENT™** Rain Gauge is a digital electronic rain gauge which operates on the principle of collecting rainfall in a funnel top, converting the rainfall to drops of uniform volume, and counting the drops electronically. Maximum accuracy of the **TORRENT™** Rain Gauge is achieved first by proper location and set-up, and is maintained through periodic maintenance of the gauge. The **TORRENT™** Rain Gauge requires no field calibration to achieve or maintain accuracy.

Location: The **TORRENT™** Rain Gauge should be located in the open, away from trees and buildings which can obstruct rainfall or cause air turbulence. Also, it should be located where visual inspection and periodic cleaning can be easily accomplished (i.e. below 60 inches from the ground). It is not necessary to mount the gauge high on a tower, mast, or rooftop, in most cases, for accurate rainfall measurements.

Mounting: The **TORRENT™** Rain Gauge is normally placed on a hard level surface, such as a patio table or deck. If elevated mounting is desired, it can be mounted on the end of a 1" PVC pipe (thinwall style is recommended, not Schedule 40), or on the Universal Mounting Bracket (an optional accessory). The pipe should elevate the rain gauge at least 10" from the ground. Extra-tall pipes must be supported to prevent swaying. To mount the gauge, place the gauge over the end of the PVC pipe so that the pipe is aligned to the ring groove in the bottom of the gauge. Using hand pressure only, push down on the top of the rain gauge until the PVC pipe is fully inserted in the ring groove (about 1/2").



TORRENT™ Rain Gauge shown on Universal Mounting Bracket (Optional)

For best accuracy, the gauge must be as level as possible. Use a carpenter's level to verify level installation of rain gauge on the pipe or Universal Mounting Bracket.

Press the RESET button to clear display for new rainfall measurement.

Maintaining the Rain Gauge

With regard to cleanliness, any foreign materials (such as dirt, leaves, insect construction projects, or bird deposits) which can restrict the free flow of rainwater into the gauge or interfere with the electronic drop-counting section can diminish the accuracy of rainfall measurement. We recommend that the **TORRENT™** Rain Gauge be cleaned at least monthly (perhaps more or less often depending on your particular environment).

Check to be sure the funnel is clear of debris. If the funnel is clogged by tree debris or insects, remove the rain gauge top by turning it 1/4-turn counter-clockwise. Wash the funnel with water and replace, being sure that the top is properly engaged and fully seated (uniform gap between top & bottom all around the gauge).

The drop tube inside the rain gauge may also be removed for cleaning as follows: remove top and unplug the 4-wire (black & white) connector from the circuit board, remove the fine screen and washer at the top of the droptube, and rinse it out with water (or isopropyl alcohol, if a solvent is necessary). Rinse and replace the coarse screen in the bottom of the rain gauge. Dry and replace the drop tube, fine screen, and washer, and re-plug the connector onto the circuit board (make sure there is no water in the connector plug). Replace rain gauge top as described above.

Troubleshooting

Some causes of common problems encountered by users are:

- Spider webs or debris can contaminate the screen at the bottom of the funnel, interfering with proper flow of rainwater into the gauge. More frequent cleaning may be necessary in some locations to deal with this problem.
- Water which remains in the drop tube electrical connector (black & white wires) after cleaning will prevent the gauge from functioning properly. Be sure the connector is dry before reinstalling (after cleaning the drop tube assembly).
- The gauge becomes un-level due to being bumped or loss of mounting support.
- Freezing conditions cause ice to form in the rain gauge, interfering with proper flow of rainwater into the gauge. If this presents a problem, call Ventorum Technologies, Inc. and inquire about the **TORRENT™** Rain Gauge model with integral heater.

WARRANTY

Each **TORRENT™** Rain Gauge carries a limited warranty against defects of material or workmanship for a period of 90 days from the date of initial purchase. Our responsibility under this warranty is limited to the repair or replacement of instruments returned to Ventorum Technologies, Inc., postage paid, together with proof of purchase date. After the initial 90-day period expires, and for a period of 12 months from original purchase we will exchange at no charge any part that is defective, but will charge for the cost of labor, return postage paid by Ventorum Technologies, Inc. This warranty shall not apply to instruments subjected to: improper installation, any alterations, misuse, tampering, or unauthorized service. It does not cover batteries, damage due to accidents, lightning, or other acts of God. Neither we nor our representatives, distributors, nor dealers shall be liable for any incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. The following charges apply to repairs beyond the initial 90-day period: \$20.00. Be sure to pack carefully and return postage paid insured together with your check or money order and proof of purchase date to:

VENTORUM TECHNOLOGIES., INC. 31 E. 17th St., St. Cloud, FL 34769

For Customer Service, Technical Support, or to order a Universal Mounting Bracket (\$9.95 + shipping), please call (407) 892-2233.

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