

# TILT INDICATORS



ShockWatch Tilt Indicators detect and record unacceptable tilting of goods that must remain upright. Removal of the adhesive backing activates the devices. Once applied to the shipping container, the product cannot be tipped without indisputable evidence of mishandling. TiltWatch™ XTR and TiltWatch™ Plus are reliable and economical solutions to prevent damage to goods in transit.

**TiltWatch® XTR:** This indicator turns red if the product it is affixed to is tilted or completely upended — but remains unaffected by movement due to normal handling conditions and aircraft takeoffs.

**TiltWatch Plus:** This indicator provides 360° monitoring — indicating the exact angle of tilt or whether complete overturn occurs.



## ■ Benefits

- Reduces product damage and losses incurred during transportation
- Provides simple, cost-effective monitoring of tilting
- Provides indisputable evidence of tilting
- Acts as a visual deterrent to improper handling
- Affixes directly to goods or packaging for clear visibility
- Ensures chain of accountability for all product handlers
- Alerts recipient to inspect contents before acceptance
- Protects against/reduces warranty claims
- Ensures quality of product from dock to dock
- Increases customer satisfaction and provides a visible marketing edge

### Use Tilt Indicators on:

Commercial appliances  
Large computer rack systems  
Telecommunications equipment  
Compressors  
Industrial batteries  
Hazmat containers  
Electronic cabinets  
Automotive parts  
And much more

# TILT INDICATORS

## ■ Features

- Tilt detection for a wide array of product types and sizes
- Easy to install and activate with removal of adhesive backing
- Tamper-proof design prevents concealment of activation without obvious evidence of interference
- Immune to normal handling conditions, vibration and aircraft takeoff angles
- Moisture-proof vacuum seal allows for use in humid applications such as ocean cargo
- Inversion indicator registers complete overturn (TiltWatch Plus only)
- Unique unit identifier

## ■ The ShockWatch Program

A key element in the success of TiltWatch XTR and TiltWatch Plus is the supporting program of companion tools. Companion labels, alert stickers, and caution tape affixed alongside ShockWatch Tilt Indicators provide a highly visible notification to alert handlers that the product is being monitored and provide directions to receivers in the case of mishandling. When combined with the companion tools, TiltWatch XTR and TiltWatch Plus promote quality and accountability in the shipping and handling of goods.

## ■ TiltWatch XTR Specifications

**Operating Temperature**  
-40°F/-40°C to +140°F/+60°C

**Humidity Tolerance**  
5% to 99% noncondensing

**Size**  
2.9"/73.66mm x 2.7"/68.58mm x 0.2"/5.08mm

**Activation Angle**  
80°+/-5% from vertical

**Monitoring Range**  
Single plane

**Composition**  
Rigid Polystyrene housing with non-magnetic steel indicator

**Installation**  
Pressure-sensitive adhesive or holes to accommodate screws, nails or staples

**Adhesive**  
2 mil high tack acrylic

**Shelf Life**  
2 years

## ■ TiltWatch Plus Specifications

**Operating Temperature**  
-40°F/-40°C to +140°F/+60°C

**Humidity Tolerance**  
5% to 99% noncondensing

**Size**  
4.6"/116.84mm x 4.6"/116.84mm x 0.3"/7.62mm

**Activation Angle**  
10° increments from 30° axis (+/-5%)

**Monitoring Range**  
360° monitoring within a single plane

**Composition**  
Clear PTE housing and brass, nonmagnetic indicator

**Installation**  
Pressure-sensitive adhesive exposed when liner and arming pin are peeled away

**Adhesive**  
1 mil high tack acrylic

**Shelf Life**  
2 years

For more information on ShockWatch's position on RoHS, EU Directive 2002/95/EC, Amendment Commission Decision 2005/618/EC, and our certificates of compliance, please visit [www.shockwatch.com](http://www.shockwatch.com).

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