

# deffner & Johann

Supplies for RESTORATION | CONSERVATION | ART HANDLING – SINCE 1880

## TECHNICAL DATA SHEET

[info@deffner-johann.de](mailto:info@deffner-johann.de) | +49 9723 9350-0

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# TiltWatch PLUS Tilt Indicator Mounting Instructions

TiltWatch PLUS tilt indicators incorporate three separate indications, two that determine the exact angle of tilt and from what direction the shipment tilted, and one that indicates whether complete overturn has occurred – providing complete 360° monitoring. The TiltWatch PLUS will not activate under normal handling conditions such as take-off angles.

**Rules of Thumb:** Once the TiltWatch PLUS Indicator is armed (1) **DO NOT** tilt left or right and (2) **IMMEDIATELY** affix indicator to carton in upright position.

**Step 1:** Peel the adhesive liner from the back of the TiltWatch PLUS. Make sure you hold it in an upright position. Once the adhesive liner is removed, the TiltWatch PLUS is armed.

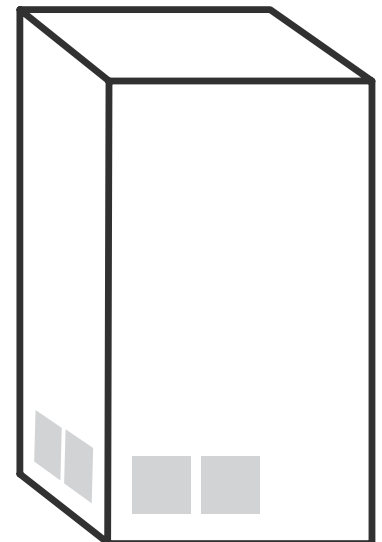
**Step 2:** Place the TiltWatch PLUS in an upright position near a corner of the shipping container. This placement helps to align the TiltWatch PLUS properly and adds rigidity.

**Step 3:** Remove the TiltWatch PLUS Companion Label from its adhesive liner and place it next to the TiltWatch PLUS Indicator.

**Step 4:** Press firmly in the centre and around the edges of the TiltWatch PLUS and TiltWatch PLUS Companion Label to make sure that the adhesive makes good contact with the container it is being applied to.

**Step 5:** On the Companion Label mark the 'DO NOT TILT THIS CARTON PAST \_\_\_\_ DEGREES' with the degree of unacceptable tilt.

**Step 6:** Repeat the above steps to place another TiltWatch PLUS on the adjacent side of the first indicator in order to monitor all planes.



**TiltWatch PLUS Indicator with Companion Label**



# TiltWatch Tilt Indicators

- Reduces mishandling during transportation or storage
- Provides indisputable evidence of mishandling
- Alerts recipient to inspect contents before acceptance
- Promotes chain of accountability for all product handling
- Confirms effectiveness of packaging
- Helps identify trouble spots in supply chain, from production to transportation and storage
- Helps increase quality of product from dock to dock

When you are shipping networking equipment and electronics, glass and mirrors, or other equipment sensitive to tilt, you need something more than just another 'This End Up' label.

ShockWatch Tilt Indicators detect unacceptable tilting on goods that must remain upright. When these indicators are used, the product cannot be tipped without indisputable evidence of mishandling.

## TiltWatch XTR

The TiltWatch XTR is a single-use tip indicator used to monitor goods that must remain upright. When attached

to a package, the TiltWatch XTR turns red if the package is tilted past 80°. The patented design ensures that the indicator remains unaffected by movement due to normal handling conditions or random vibrations.

## TiltWatch Plus

The TiltWatch Plus indicates whether there has been tilt to the left or right, the degree of the tilt, or if complete overturn has occurred.



TiltWatch XTR Indicator with Companion Label



TiltWatch Plus Indicator with Companion Label



## Selection Guide

	TiltWatch XTR	TiltWatch Plus
<b>Sensor Type</b>	Steel disc, non-metallic	Glass balls
<b>Arming Method</b>	Remove adhesive backing	Remove adhesive backing
<b>Serialised Barcode</b>	Yes	Yes
<b>Indicates Tilt Direction</b>	No	Yes
<b>Indicates Degrees Of Tilt</b>	No	Yes
<b>Inversion Indicator</b>	No	Yes
<b>Activation Angle</b>	Greater than 80°	30° with 10° increments to 90°

## TiltWatch XTR Specifications

<b>Monitoring Range</b>	Single plane
<b>Tolerance</b>	±5° at 20°C / 68°F, 1 ATM
<b>Operating Temperature and Humidity</b>	-40°C to 60°C / -40°F to 140°F 5 – 99% RH, non-condensing
<b>Adhesive</b>	2mm high tack acrylic
<b>Adhesive Shelf Life</b>	2 years
<b>Composition</b>	Rigid polystyrene housing with non-magnetic steel indicator
<b>Dimensions</b>	74.27mm x 60.31mm x 5.29mm
<b>Weight</b>	~14.17g
<b>Installation</b>	Pressure-sensitive adhesive or holes to accommodate screws, nails, or staples
<b>Customisation</b>	Private logos available. Minimum quantity applies

## TiltWatch Plus Specifications

<b>Monitoring Range</b>	Single plane and rollover
<b>Tolerance</b>	±5° at 20°C / 68°F, 1 ATM
<b>Operating Temperature and Humidity</b>	-40°C to 60°C / -40°F to 140°F 5 – 99% RH, non-condensing
<b>Adhesive</b>	Vinyl acetate copolymer
<b>Adhesive Shelf Life</b>	1 year
<b>Composition</b>	Clear PVC housing and glass indicator
<b>Dimensions</b>	116.84mm x 116.84mm x 7.62mm
<b>Weight</b>	~15.30g
<b>Installation</b>	Pressure-sensitive adhesive exposed when liner and arming pin are peeled away