HOW TO SELECT IMPACT INDICATOR SENSITIVITY

The following methods are suggested guidelines to assist in determining the appropriate g force for Impact-O-Graphs mechanical impact indicators. This includes our Omni line, Trans-monitor line and Protect A Pak impact indicators.

Method I

1. Determine the threshold of damage height (height of drop to do damage) for your product inside its shipping container.
   a. This can be accomplished by successively higher drops until damage occurs to an actual product or a facsimile of identical weight and sensitivity.
   b. It may also be the maximum height the product will be dropped by normal good handling as stated by your shipper.

2. Then, place a range of several impact indicators on your product (or facsimile) inside its normal shipping container. Drop the container several times at the threshold of damage height and note which indicators are tripped. The reason for several drops is that the package may provide better cushioning at some impact angles than others. The highest indicator that trips is the one which should be used to sense that drop height. If all indicators trigger, increase sensitivity range, and re-drop.

EXAMPLE: Electronic equipment packed using an inner box and outer box with Toro-pad corner blocks in between and weight of 65 lbs.

1) It was previously determined that damage can occur at a drop of 24 inches or more.

2) Install indicators 30g, 40g, 50g, 60g and 70g on the product inside container.

3) Drop from height of 24 inches.

4) Indicators 30g, 40g, and 50g triggered; 60g and 70g indicators did not trigger.

5) Result: If an indicator 50g is installed on product and arrives at the destination triggered, it is know that the container was subjected to a 24-inch drop or higher during shipping.

Method II

Place a range of impact indicators on each product inside its container prior to shipment. When the product is received at its destination, note which indicators are triggered and the condition of the product. Over a period of several shipments, correlate the triggered impact indicators with any damage that may have occurred to the product to determine which indicator triggers coincide with damage to the product. This method does not establish a particular height of drop that would cause damage, but gives an indication of whether or not damage could be expected.

NOTE: It is not possible to provide specific guidelines as to which sensitivity to use for a particular product type. The “g” forces seen by a product vary greatly, as a result of the type of packaging used and the size and weight of the product. The “g” force that would cause damage to a product varies according to the sensitivity of the product. Our engineers are available by telephone to assist you in your selection of the proper sensitivity.

The following outlines, generally, a range to start your testing:

Product Weight	Indicator Sensitivity
Under 50 lbs.	40g to 80g
50 to 500 lbs.	20g to 60g
Over 500 lbs.	10g to 40g