

Saving Lives with Breakaway Support



Transpo's Break-Safe[®] is an omni-directional breakaway support system for ground mounted signs located within roadside clear zones or other locations vulnerable to vehicular impacts. The system is designed to break away quickly and cleanly upon impact, thus saving lives and reducing property damage costs. Break-Safe[®] couplings are omni-directional, meaning the system breaks away with consistent, predictable behavior, regardless of the vehicle's angle of impact.

Break-Safe[®] has been vehicle crash-tested resulting in a NCHRP approval letter based on NCHRP Report 350. In addition to superior safety performance, Break-Safe[®] provides high structural load-carrying capacity. New national signing standards specify increased sign sizes for visibility in addition to increased wind load levels. The changes create a significant increase in structural demands on sign supports. Break-Safe[®] is designed to support a wide range of post sizes, up to and including the largest permitted by AASHTO. The flexibility built into the system provides many choices when selecting post types for specific applications.

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Features and Advantages

Omni-Directional Breakaway Performance: Accident research and field experience have demonstrated that vehicles often leave the roadway and impact structures at high angles of incident. Break-Safe's symmetrical coupling design allows the system to breakaway with consistent, predictable behavior regardless of the vehicle's angle of impact. This unique omni-directional capability exceeds FHWA and AASHTO requirements for impact performance. All Break-Safe[®] models are FHWA approved for use on the National Highway System (NHS).

High Structural Capacity: Break-Safe[®] is available in a variety of models, designed to support different sign configurations and post types. The high-strength coupling and L-bracket design provides increasing structural capacity as the size of the post increases. This unique feature offers unmatched load-carrying capacity and accommodates many different post types for both single and multiple post configurations.

High Durability: All Break-Safe[®] couplings and hardware are hot-dip galvanized in accordance with ASTM A153 to provide proven corrosion protection in harsh roadside environments. Additionally, independent fatigue testing has demonstrated that Break-Safe[®] couplings are capable of withstanding more than 2 million loading cycles with no reduction in structural capacity.



Model A Series:

Model Number	Post Size and Type
AI4	4, 5" Standard I-Beams
AI6	6 x 9" Wide Flange
AP	3, 3.5, 4, 4.5" O.D. Round Pipes
AS	2.5, 3, 4" Square Tubes
AU	4, 6, 8lb. Back-to-Back U-Channels

Model B Series:

Model Number	Post Size and Type
B525	6, 8" Wide Flange 5" Square Tubes
B650	10 - 21" Wide Flange 6, 7, 8" Square Tubes

Easy to Install and Maintain: No special tools or equipment are required to properly install and maintain Break-Safe[®]. All components are easily secured using the American Institute of Steel Construction (AISC) turn-of-nut tightening method, which eliminates the torque requirement typical with other systems.

Low Profile: Break-Safe[®] offers the lowest stub height after impact of any current breakaway system for signs. This is essential for maximum safety and allows for variations in foundation height. Break-Safe's after-impact stub height is less than 1 inch (25mm) above the top of the foundation.

TESTED AND APPROVED TO NCHRP 350

U.S. Patents 4,528,786 and 5,596,845