



Worker Safety

Self-Retracting Lifelines

Brought To You by 3M Personal Safety Division | Dec 01, 2023

New ANSI/ASSP Z359.14-2021 Standard Revision

Jobs change. Technology improves. Equipment evolves. All of these developments lead to changes in standards.

Whether you manufacture, distribute, purchase, design, install or use these systems, this new standard probably affects you. Here are some key changes that you need to be aware of. How will the upcoming changes to ANSI/ASSP Z359.14-2021 affect you and your workers?

New Definitions & Classes

Effective August 01, 2023 – Class A & B devices have been redefined as Class 1 and Class 2.

Class 1:

- For use on overhead anchorages AT or ABOVE the dorsal D-ring.
- Subject to a maximum free fall of 2 feet

Class 2:

- For use when overhead anchorages are not feasible and anchorages are ABOVE or BELOW the dorsal D-ring
- Subject to a maximum free fall of 6 feet.
- Must be edge rated.

Additionally, Self-Retracting Devices (SRDs) have been designated into updated categories:

SRL — Self-Retracting Lanyard (or Lifeline)

SRL-P — Self-Retracting Lanyard, personal (New): A single or twin model designed to be worn on the user's full body harness or alternatively mounted to an anchorage

SRL-R — Self-Retracting Lanyard with integral rescue capability: A SRL with integral means for assisted rescue via raising or lowering the rescue subject

Note: the previous designation of SRL-LE is now redesignated as Class 2 SRD

What does this mean to me?

Based on the class of self-retracting device, products manufactured after August 01, 2023 will have clear designation labels with Class 1 or Class 2 indicating the location of the anchor point relative to the dorsal D-ring.

New Product Labeling

This standard revision requires several visual changes to the product labeling including:

- Class Designation Icon
- Illustrated Fall Clearance Tables
- Clearance Requirement Labels
- Product Warning Card

SRL Devices manufactured prior to August 01, 2023 can remain in service. All devices must meet the manufacturers' inspection requirements and be inspected by a competent person.

SRL Devices manufactured prior to August 01, 2023 do not require labeling updates.

What does this mean to me?

There are now visual indicators to help users to more easily select the appropriate fall protection equipment to safely do their jobs. Users of self-retracting devices are now able to reference fall clearance calculations by referencing labeling on the product housing.

Testing and Performance

Revised requirements apply to all SRDs where personal Fall Protection equipment is required.

This standard's change requires 3M to comply with increased testing procedures and requirements.

New testing methods and increased requirements help improve the robustness of our products.

Classes

Former Class A and Class B devices have been redesignated as Class 1 and Class 2. This change requires labeling on the product to indicate the required anchor point. Self-Retracting Devices have been designated into categories:

- SRL
- ~~SE~~SRL-P
- SRL-R

The previous SRL-LE classification has been removed and will now be designated as a Class 2 device.

Labels and Instructions

Required visual changes to product labeling to allow users to more easily select the appropriate piece of Fall Protection Equipment.

Key Performance Changes

Weight

Dynamic Performance Test Changes: Test weight increased from 282 lbs. to 310 lbs.

Average Arresting Force: Increased from 900 lbs. to 1,350 lbs. (ambient) and 1,575 lbs. (in conditions)

Arrest Distance

Maximum Arrest Distance: Reduced from 54 in. to 42 in.

Maximum Free Fall: Class 1: 2 ft. Class 2: 6 ft.

Integral Energy Absorber Requirement: Required for Class 2 devices.

Strength & Force

Lifeline Webbing Strength Requirement: Increased from 4,500 lbs. to 5,000 lbs.

Ambient Static Strength Requirements: Increased from 3,000 lbs. to 3,600 lbs.

Minimum Tensile Breaking Strength: For Class 2 webbing & synthetic rope devices: 5,000 lbs.

What are some considerations for Safety Managers?

If you are planning to anchor below the Dorsal D-ring of your full body harnesses, a Class 2 device is now required.

Re-evaluate work procedures and SRL use in your applications:

- Review potential clearance differences
- Review anchorage strength requirements, as the average arresting force increased from 900 lbs. to 1,557 lbs.
- Leading and sharp edge applications can shift from former SRL-LE to Class 2 rated products

What devices will be required for use in Mobile Elevated Work Platforms (MEWP's)?

Based on the design of MEWP platforms, SRDs have to be anchored below D-ring height. Therefore, this application will require a Class 2 rated device for compliance.

Additionally, the use of a work restraint system to support the MEWP personal fall arrest system is considered a best practice.

Download a PDF of the infographic [**here**](#).

Previously Featured on 3M Personal Safety Division's website.

