



www.gmesupply.com  
(800) 940-6762  
info@gmesupply.com

# SRL, SRD, PFL 101

## WHAT IS A SELF-RETRACTING LIFELINE?

A Self-Retracting Lifeline, or SRL, is a device that contains a spring loaded retracting web or cable lanyard wound around an internal drum. It automatically locks and arrests the fall of a worker.

## CLASS 1 vs CLASS 2

ANSI Z359.14-2021 classifies Self-Retracting Lifelines and Personal Fall Limiters into two classes. The most notable change that will impact your work in the field is the new classification system. Instead of the former A & B class and additional Leading Edge, Foot level & Overhead application variants. There will now be a simplified dual-class system featuring Class 1 and Class 2 designations.

### Class 1

Retracting Devices are defined as only being meant for overhead anchorages and shall ensure a user is subjected to a freefall of no more than 2 feet.

### Class 2

Self Retracting Devices, which would be the new equivalent to the previous "Leading Edge" designation, have been tested for applications where overhead anchorages are not feasible or possible. This requires that, in practical application, a user may be subjected to a freefall of no more than 6 feet over an edge.

In order to determine these new Classifications, the ANSI Z359.14 - 2021 Standard Committee has also revised the testing & labeling requirements for Self Retracting Devices.

CLASS  
**1**

CLASS  
**2**

LOOK FOR THESE  
BADGES THROUGHOUT  
THE CATALOG.

## ANSI 2021 UPDATES

- An Increase in test mass from 282 pounds to 310 pounds.
- The addition of a lateral offset test to ensure performance in a swing fall.
- SRD-P specific tests aimed at qualifying these devices in a similar manner as energy-absorbing lanyards are in the Z359.13
- Test requirements for the connecting elements used to affix SRL-P's to the full-body harness, a requirement that now affords ANSI status for any units utilizing non-traditional connectors for harness mounting.

## SWING FALL

SRLs are great because they allow you to work much farther away from an anchorage point, sometimes over 100 ft. The downside to this is swing falls become much more of a danger.

A swing fall occurs when an anchorage point is not directly overhead of a worker. The device will stop them in the required distance, but the worker may still swing a great distance. This potentially puts other obstacles, walls, or objects in the path for the worker to collide with.

To avoid swing falls, always stay in the safe zone, which is within 30 degrees of your anchor point. Swing falls can be avoided by using mobile anchorage points which will travel with the worker.

## BODY WORN vs MOUNTED

Larger SRLs are mounted above the worker, and the lanyard runs down to connect to the user's dorsal D-ring on their harness. These come in lengths ranging from 8ft to over 100ft. The other option is body worn. Body worn SRLs - also called Personal SRLs are now designated by ANSI as SRL-Ps. These are compact devices which connect directly to the users harness and are much shorter, generally 6 or 8 ft. To tie-off the user connects the tether to an anchorage point. They are also available in twin-leg configuration for 100% tie-off.

## LEADING EDGE + FOOT LEVEL

Most SRLs are designed only to be mounted above the user. For cases where this is not possible, specially designed Foot Level or Leading Edge SRLs are required. ANSI classifies these as Class 2 devices. These incorporate factors to absorb the extra energy associated with foot-level tie off, as well as more robust cables to resist breaking when run against a leading edge.

## REPLACEMENT & RECERTIFICATION

Recertification can be done on some SRLs by the manufacturer to prolong the life of the unit. This can be done after the device is involved in a fall, or after the unit has been in the field for a specific period of time. Check with the manufacturer for specifications on recertification.

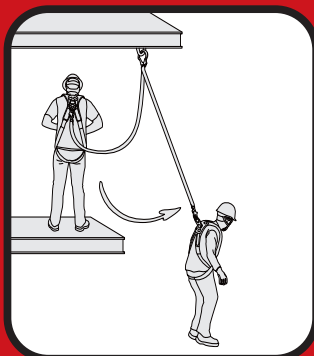
Other devices cannot be recertified and must be destroyed and replaced if they are involved in a fall or after a time period specified by the manufacturer.

## OTHER VARIATIONS

- Other potential options for SRL variations include:
- Sealed design for harsh work environments with grease, dust, and moisture.
  - Rescue Devices, referred to as SRL-R by ANSI, for auto retrieval. These are common on confined space systems.
  - Tie-Back for when connectors cannot secure to anchorage points.
  - Arc Flash rated for working in electrical environments.

More questions?  
Give our Gear Experts® a call.

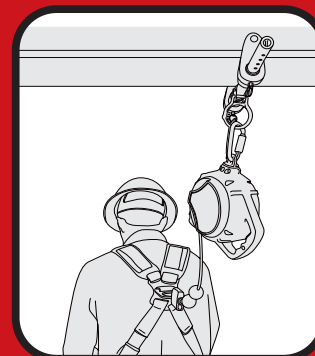
FREE  
DOWNLOAD



SWING FALL



BODY WORN



MOUNTED



LEADING EDGE