

DK Series

The Safe-Away[®] DK Series Access Systems are the result of years of re-engineering our existing ladders and stairs to provide a simpler low maintenance alternative for our customers.

Designed to reduce the possibility of physical damage to the access systems on heavy mining and excavation machinery, the DK Series stairs and ladders are raised to a vertical position above the ground when the machine is operational.

INNOVATION
efficiently
designed to
minimise
costs



Stair
RTV-SDK



Ladder
RTV-LDK

Safety & Efficiency

The **Safe-Away® DK Series Raise to Vertical (RTV) Access Systems** have been specifically designed to suit a wide range of equipment and provide:

- A 45° stairway (RTV-SDK) and 62° ladder (RTV-LDK) offering safer access and egress while carrying tools.
- Two sections: the Mount Infil box enclosing the horizontal Hydraulic Power Pack and the Access System Assembly (steelwork) making it easier and more cost effective to replace.
- A tread mesh top step offering more stability.
- Fewer parts means reduced spares on hand and fewer moving parts to wear down.
- Fixed handrails (to give three points of contact) that are now easier to remove and/or replace.
- Standardization of many Safe-Away® Access Systems meaning it will be simpler for training, installation and maintenance.
- Park Brake Interlock Kit provides additional protection by raising the system automatically when the park brake is released (Note: not applicable with Momentary operation configuration).

Innovation

The **Safe-Away® 2009 Series Access Control System** manages all ladder operations.

It provides:

- Simple downloading of day to day logged data to a USB.
- Sequential reports on all events with time and date stamps:
 - Raising and lowering,
 - Fault indications.
- Operational history data logs.
- Diagnostics and error reporting accessed directly from the incab control digital display.



Access Control System Features

- Incab control panel with a digital touch pad display showing:
 - Access system status; UP, DOWN and IN MOTION.
 - Detailed fault indication with audible alarm and system event log.
 - 3,000 point event data log with download using a USB key connection to the side of the in cab control panel.
- View downloaded log files as summary and/or full log data in Microsoft® Excel using the supplied SLA to XLS file converter.



The **Safe-Away® 2009 Series Power Pack** is driven by the Access Control System. The hydraulic Power Pack may be mounted vertically, at a convenient location of your choosing, on the vehicle.

It includes:

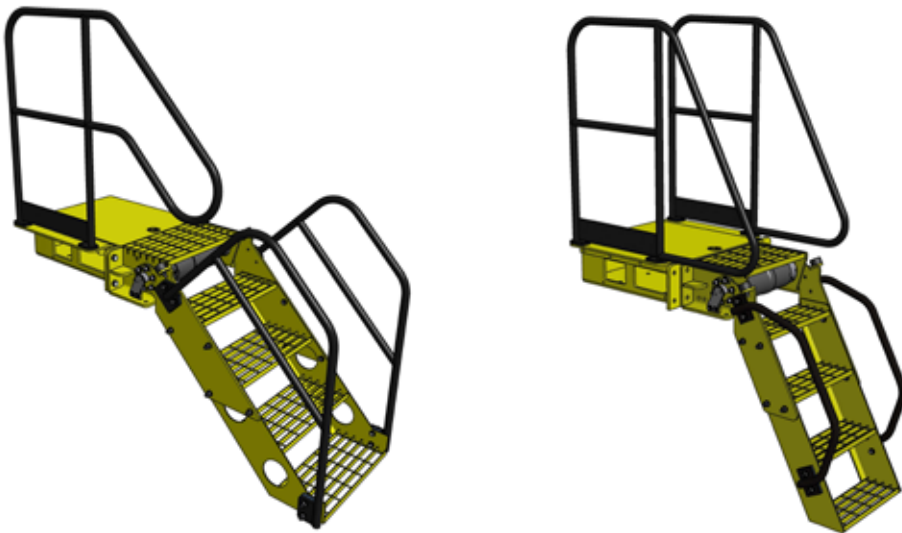
- Harnesses and Leads.
- Battery Circuit Breaker Kit.
- The Reservoir Heater ensuring the viscosity of the oil is maintained to raise and lower the ladder in cold climates.

| Log Index | Event Label | Event Code | Date |
|-----------|--------------------------------------|------------|------------------------|
| 1 | Ladder Down | 254 | 01/09/2000 11:31:47 PM |
| 2 | System Voltage Below 18V | 18 | 02/09/2000 12:15:21 AM |
| 3 | Ladder Up | 255 | 02/09/2000 12:20:20 AM |
| 4 | Ladder Down | 254 | 02/09/2000 01:38:05 AM |
| 5 | Ladder Up | 255 | 02/09/2000 01:40:34 AM |
| 6 | Ladder Down | 254 | 02/09/2000 04:38:29 AM |
| 7 | Ladder Up | 255 | 02/09/2000 05:21:04 AM |
| 8 | Ladder Down | 254 | 02/09/2000 06:37:10 AM |
| 9 | System Voltage Below 18V | 18 | 02/09/2000 06:42:51 AM |
| 10 | Ladder Up | 255 | 02/09/2000 07:19:39 AM |
| 11 | System Voltage < 18V During Movement | 17 | 02/09/2000 07:19:46 AM |
| 12 | Ladder Down | 254 | 02/09/2000 08:00:52 AM |
| 13 | System Voltage Below 18V | 18 | 02/09/2000 08:01:40 AM |
| 14 | Ladder Up | 255 | 02/09/2000 08:08:12 AM |
| 15 | Ladder Down | 254 | 02/09/2000 08:22:30 AM |
| 16 | System Voltage Below 18V | 18 | 02/09/2000 08:24:54 AM |
| 17 | System Voltage Below 18V | 18 | 02/09/2000 12:24:06 PM |

Designed to suit your fleet

The **Safe-Away® DK Series RTV Access Systems** are designed to suit OEM vehicles and are able to be retrofitted if replacing existing systems.

Each system may be varied to accommodate your requirements for specific mount points, platform handrails, infills and site and/or OEM colors.



RTV-SDK (45° stairway)

Designed for use on:

- Trucks
- Dozers
- Loaders
- Shovels
- Excavators

Compatible OEM models include:

| | | | | |
|--------|--------|--------|--------|--------|
| 773F | 773G | 775F | 777F | 777G |
| 785C | 785D | 789C-D | 793C-D | 793C |
| 793F | 797F | 988F-H | 992C-D | 992K |
| 992C-G | 993K | 994G | 844B-H | 854B-K |
| 730E | 830E | 930E | 960E | WA600 |
| WA900 | WA1200 | EH4500 | EH5500 | L1850 |
| T262 | T282 | | | |

The stair can also be adapted for other equipment.

RTV-LDK (62° ladder)

Designed for use on:

- Trucks
- Dozers
- Loaders
- Shovels
- Excavators
- Graders

Compatible OEM models include:

| | | | | |
|----------|--------|--------|--------|--------|
| 773E | 773F | 775A-E | 775F | 777D |
| 777F | 777G | 789A-C | 789D | 793B-F |
| 797F | 980H | 988G | 988H | 992C-G |
| 992K | 993K | 994D-F | 994H | 824H |
| 834B-H | 844H | 854B-K | 24M | 385 |
| HD1500 | WA800 | WA900 | WD900 | PC1000 |
| PC1250 | PC1600 | EH4500 | EH5500 | EX1900 |
| EX1200-5 | MT4400 | | | |

The ladder can also be adapted for other equipment.

Optional extras

1. Additional Raise and Lower Control Panel Kit



A remotely mounted control panel designed to enable the raise and lower operation from outside of the vehicle's cab, or at a position

accessible from ground level. Encased in a protective aluminium case.



2. Hydraulic Emergency Down Kit

A lever operated three-way ball valve and mounting bracket provides a fail safe emergency down function.

3. Boarding Light and Audible Alarm Kits



The boarding light (left) and audible alarm (below) are activated by pressing the up or down directional switch. The light will stay on for an adjustable/preset period.



4. Inhibit Kit

A relay with connecting harness for customer only installation of

machine inhibit functions independent of the standard Safe-Away® in-built ladder safety functions.

5. Momentary Operation

Safe-Away® Access Systems can be supplied with momentary operation.

Continuous improvement

One of the key objectives when designing the **Safe-Away® DK Series Access Systems** was to minimise the number of parts, moving or static. We are proud to say we were able to reduce the number of parts. This will reduce your cost of stock on hand and a lowers the number of wear parts.

Specifications

These Safe-Away® Access System have been designed and manufactured to comply where practicably possible with the relevant sections of the following standards:-

SAE J185_200305 ISO 2867:2011 ANSI Z535.4-2007 ANSI A14.2-2007 AS 3868-1991 AS1657-2013

RTV-SDK Range Dimensions

| Steps | Deck Height | | Raised height | |
|-------|-------------|--------|---------------|--------|
| 5 | 49.6in | 1260mm | 52.8in | 1342mm |
| 6 | 58.1in | 1475mm | 64.8in | 1647mm |
| 7 | 66.5in | 1690mm | 76.7in | 1950mm |
| 8 | 75in | 1905mm | 88.7in | 2254mm |
| 9 | 83.5in | 2120mm | 100.7in | 2558mm |
| 10 | 91.9in | 2335mm | 112.6in | 2862mm |

Stairway Dimensions (approx)

| | | | |
|---|------------------|--------|--------|
| A | Stairway Width | 22.6in | 574mm |
| B | Actuator Height | 8in | 204mm |
| C | Actuator Depth | 12.2in | 311mm |
| D | Mount Box Height | 8in | 204mm |
| E | Mount Box Depth | 26.3in | 668mm |
| F | Handrail Height | 48.4in | 1230mm |

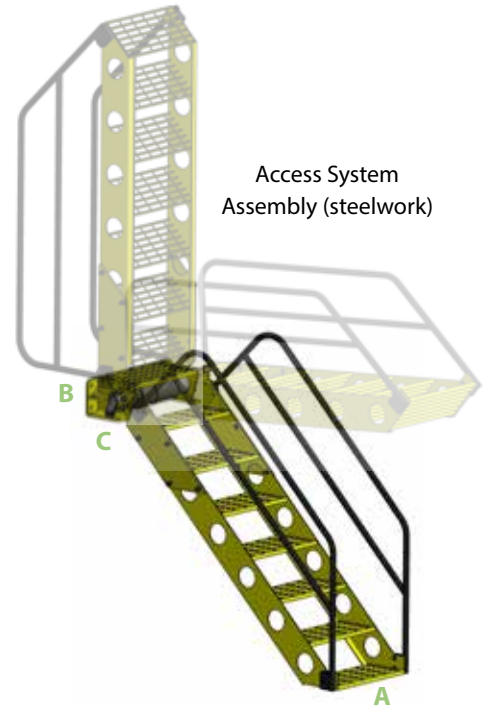
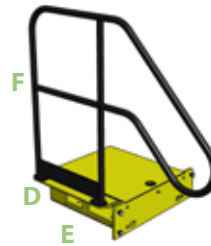
RTV-LDK Range Dimensions

| Steps | Deck Height | | Raised height | |
|-------|-------------|--------|---------------|--------|
| 3 | 74.8in | 1900mm | 70.3in | 1788mm |
| 4 | 84.6in | 2150mm | 81.5in | 2071mm |
| 5 | 94.4in | 2400mm | 92.7in | 2355mm |
| 6 | 104.3in | 2650mm | 103.8in | 2638mm |
| 7 | 114.1in | 2900mm | 115in | 2921mm |
| 8 | 124in | 3150mm | 126.1in | 3204mm |

Ladder Dimensions (approx)

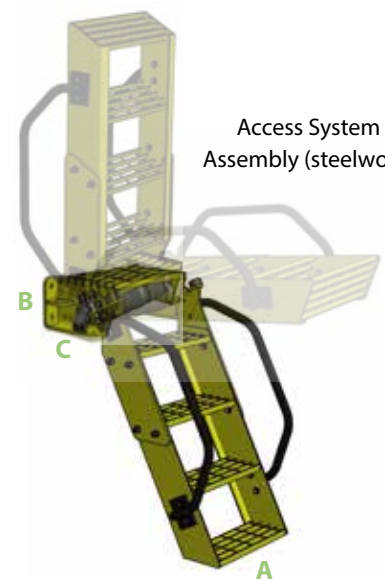
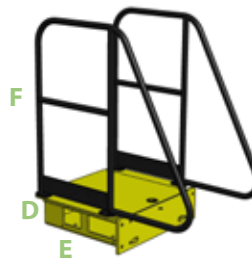
| | | | |
|---|------------------|--------|--------|
| A | Ladder Width | 17.9in | 457mm |
| B | Actuator Height | 8in | 204mm |
| C | Actuator Depth | 12.2in | 311mm |
| D | Mount Box Height | 8in | 204mm |
| E | Mount Box Depth | 26.3in | 668mm |
| F | Handrail Height | 48.4in | 1230mm |

Mount infill box enclosing the horizontal Hydraulic Power Pack



Access System Assembly (steelwork)

Mount infill box enclosing the horizontal Hydraulic Power Pack



Access System Assembly (steelwork)