

RTV Stairs

The Safe-Away® Raise To Vertical (RTV) Stairs have been designed to improve safety for operator and maintenance staff when accessing large earthmoving equipment employed in the mining industry.

To reduce the possibility of physical damage to the stairs, the RTVs are retracted to a vertical position above the ground when the machine is operational. The 45° stair offers easier access for maintenance personnel when accessing the vehicle while carrying tools.



Safety & Efficiency

The **Safe-Away® RTV Stairs** have been specifically designed to suit a wide range of equipment and provides:

- 45° stair for access and egress while carrying tools and other items.
- Steps of regulation size.
- Fixed handrail system for three points of contact.
- A simple robust hydraulic actuator to raise the Stair to the vertical position above the ground when the machine is operational.
- Park Brake Interlock Kit providing additional protection by ensuring the Stair is raised automatically when the park brake is released.

Innovation

The **Safe-Away® 2009 Series Access Control System** manages all Stair 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

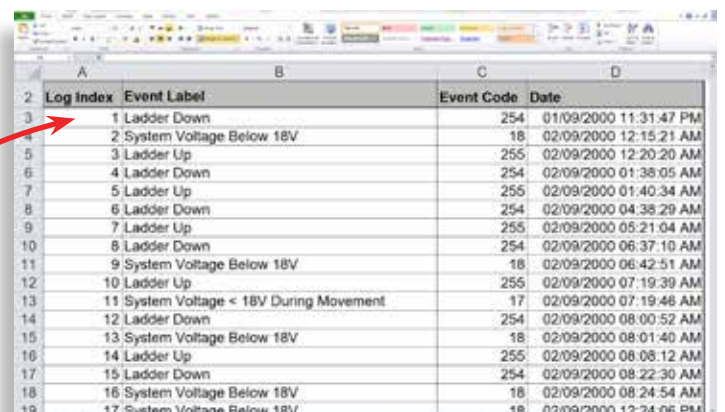
- Incab control panel with a digital touch pad display showing:
 - Access system status; UP, DOWN and IN MOTION.
 - Detailed fault indication with audible alarm and system event log.
 - 3,000 point event data log with download using a USB key connection to the side of the in cab control panel.
- View 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. Conveniently, the top step/platform is the Power Pack box designed to safely store the hydraulic Safe-Away® Series 2009 Power Pack in a horizontal position. Or the Power Pack may be mounted vertically at another location of your choosing.

It includes:

- Harnesses and Leads.
- Battery Circuit Breaker Kit.
- A 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

There are 2 models of **Safe-Away® RTV Stairs** designed to suit OEM vehicles.

Each of these RTV models may be varied to accommodate your requirements for specific mount points, platform handrails, infills, platforms, site and/or OEM colors, and Power Pack locations.

RTV-CF

Designed for use on:

- Shovels
- Loaders
- Excavators
- Equipment up to 193 inch deck height

Compatible OEM models include:

PC3000	PC4000	PC5500	PC8000
H285	EX1900	EX2500	EX3500
EX3600	EX5500	L1850	L2350
994	996	RH120	RH170
RH200	RH340	RH400	B295

The RTV-CF can be adapted for other equipment.



RTV-B

Designed for use on:

- Trucks
- Loaders
- Excavators
- Equipment up to 118 inch deck height

Compatible OEM models include:

994 WA1200

The RTV-B can 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.

Comes standard with RTV-CF Stairs.

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

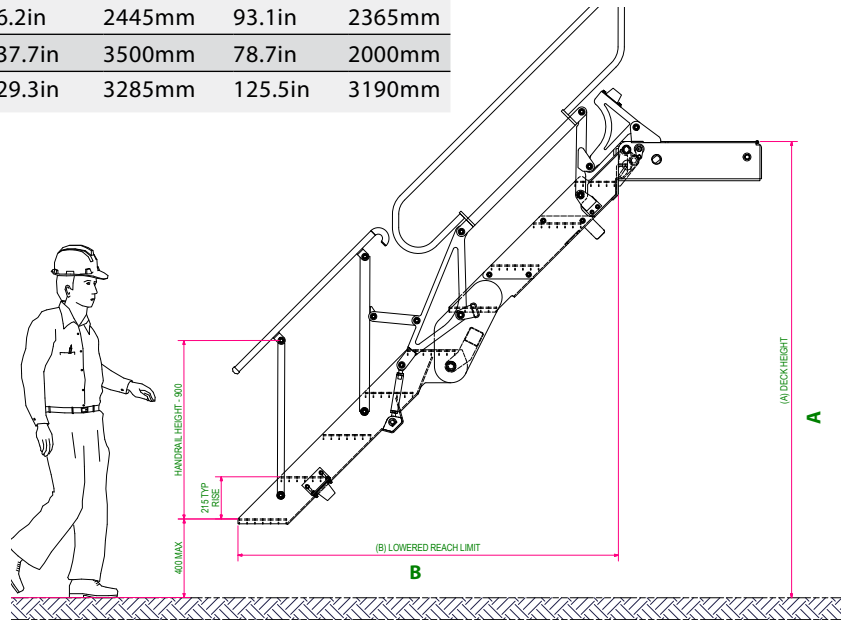
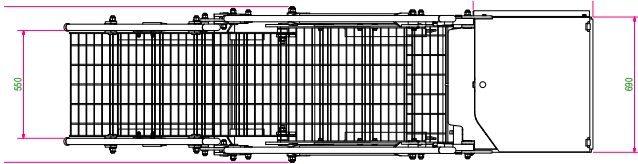
Safe-Away® Access Systems can be supplied with momentary operation.

Specifications

The Safe-Away® RTV-CF has been designed and manufactured to comply 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-CF Range Dimensions

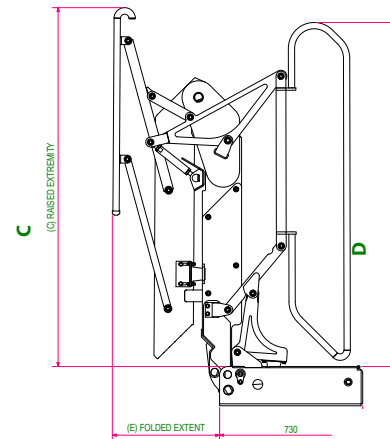
Steps	A-Deck Height Maximum	B-Lowered Reach Limit	C-Raised Extremity	D-Raised Handrail
10	91.9in 2335mm	75.9in 1930mm	73in 1855mm	69.1in 1755mm
11	100.3in 2550mm	84.4in 2145mm	75.2in 1910mm	69.1in 1755mm
12	109in 2770mm	92.7in 2355mm	87.4in 2220mm	81.1in 2060mm
13	117.7in 2990mm	101.1in 2570mm	87.4in 2220mm	81.1in 2060mm
14	126.3in 3210mm	109.6in 2785mm	99.2in 2520mm	93.1in 2365mm
15	134.8in 3425mm	117.9in 2995mm	99.2in 2520mm	93.1in 2365mm
16	139.3in 3540mm	125.9in 3200mm	99.2in 2520mm	93.1in 2365mm
17	151.9in 3860mm	134.2in 3410mm	96.2in 2445mm	93.1in 2365mm
19	168.9in 4290mm	151.1in 3840mm	137.7in 3500mm	78.7in 2000mm
22	188.9in 4800mm	180.3in 4580mm	129.3in 3285mm	125.5in 3190mm



In the down position

In motion

In the up position



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