

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

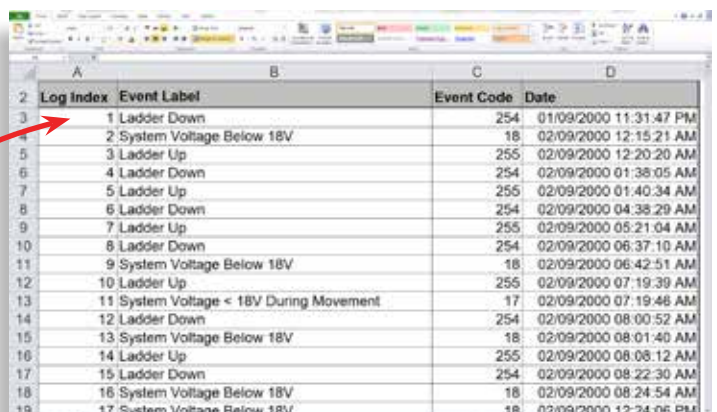
- Incab control panel with a digital touch pad display showing:
 - Access system status; UP, DOWN and IN MOTION.
 - Detailed fault indication with audible alarm and system event log.
 - 3,000 point event data log with download using a USB key connection to the side of the in cab control panel.
- View 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

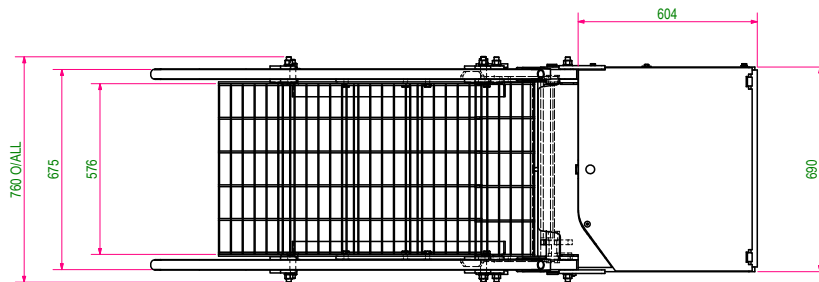
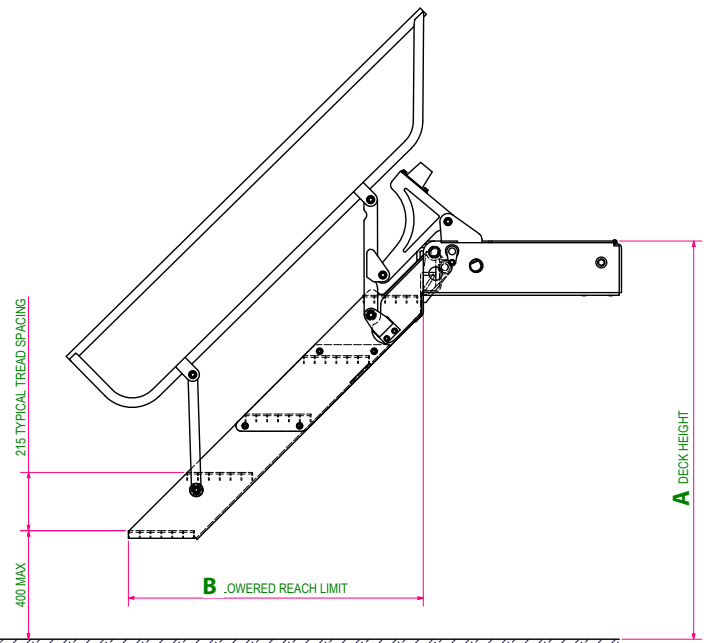
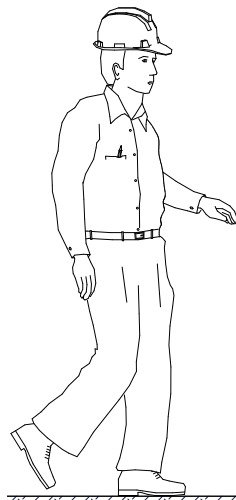
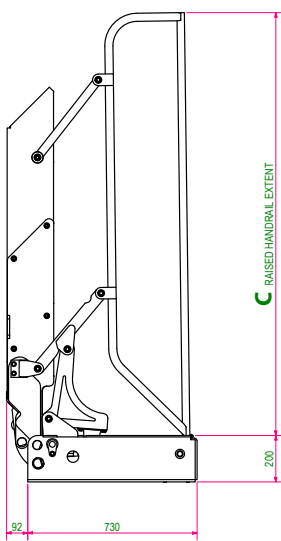
Safe-Away® Access Systems can be supplied with momentary operation.

Specifications

The Safe-Away® RTV-B 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

RTV-B Range Dimensions

Steps	A-Deck Height Maximum	B-Lowered Reach Limit	C-Raised Handrail
6	57.6in 1465mm	42.7in 1085mm	71.8in 1825mm
7	66.1in 1680mm	51.1in 1300mm	83.6in 2125mm
8	74.6in 1895mm	59.6in 1515mm	95.4in 2425mm
9	83in 2110mm	68.1in 1730mm	107.2in 2725mm
10	95.1in 2325mm	76.5in 1945mm	119.1in 3025mm
11	100in 2540mm	85in 2160mm	130.9in 3325mm
12	108.4in 2755mm	93.5in 2375mm	142.7in 3625mm
13	116.9in 2970mm	101.9in 2590mm	154.5in 3925mm
14	125.3in 3185mm	110.4in 2805mm	166.3in 4225mm



MHG00207_2 31082015